

AUDIO VIDEO SURROUND RECEIVER

KRF-V7020D/V8020D

VR-307/309/357

SERVICE MANUAL

KENWOOD

© 1999-1/B51-5499-00 (K/K) 1895

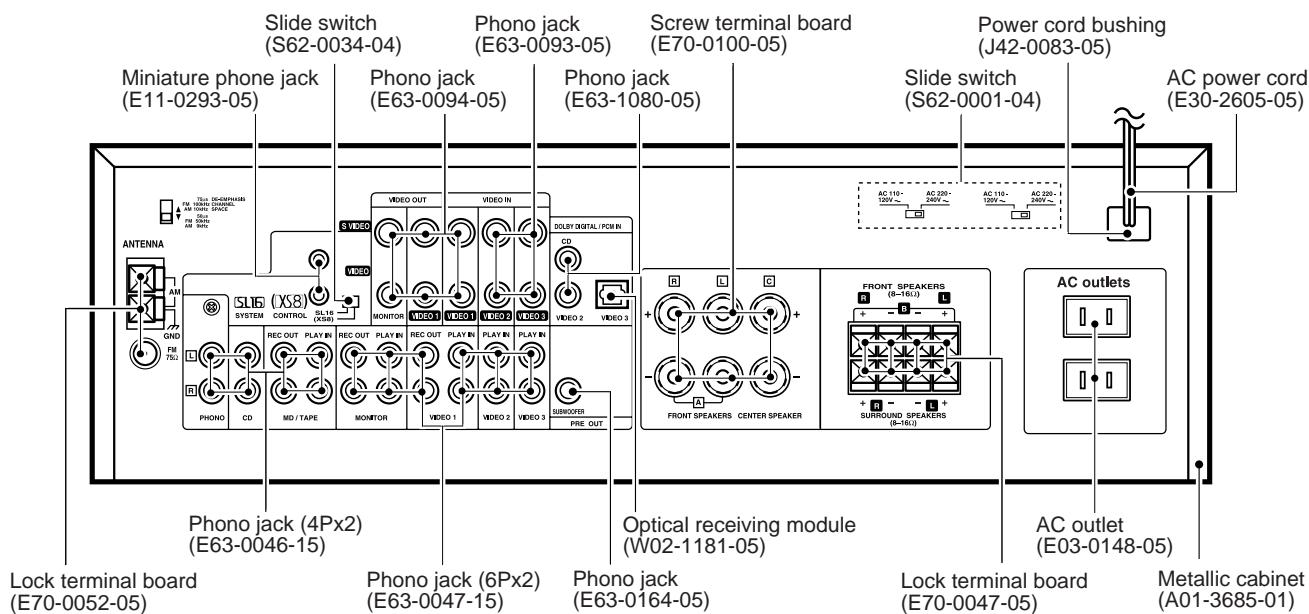
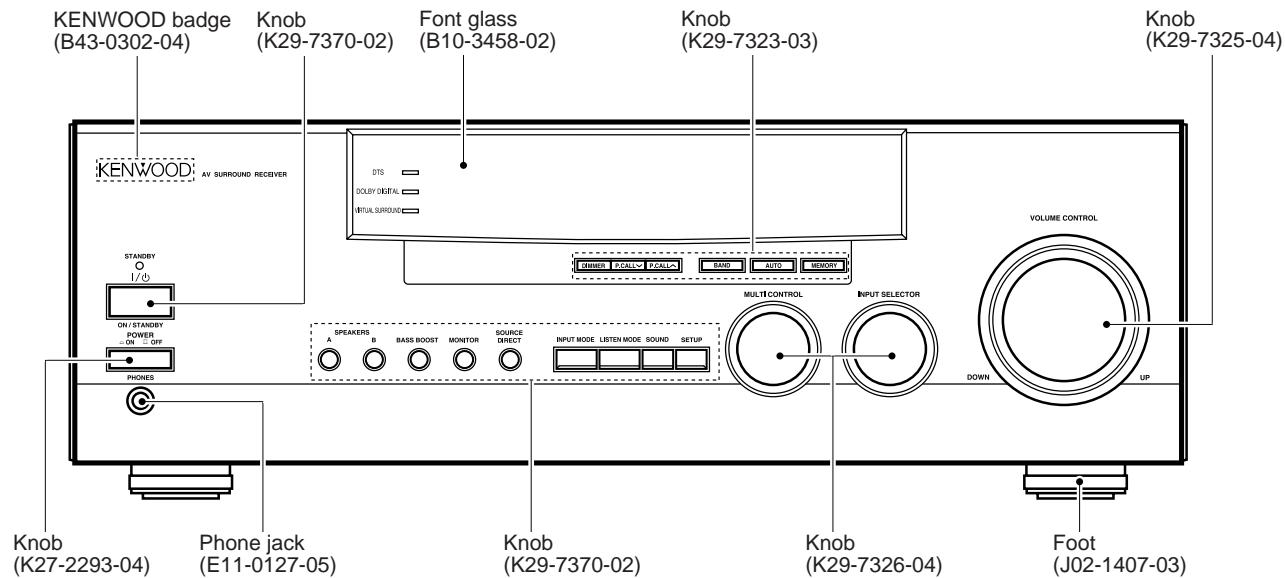


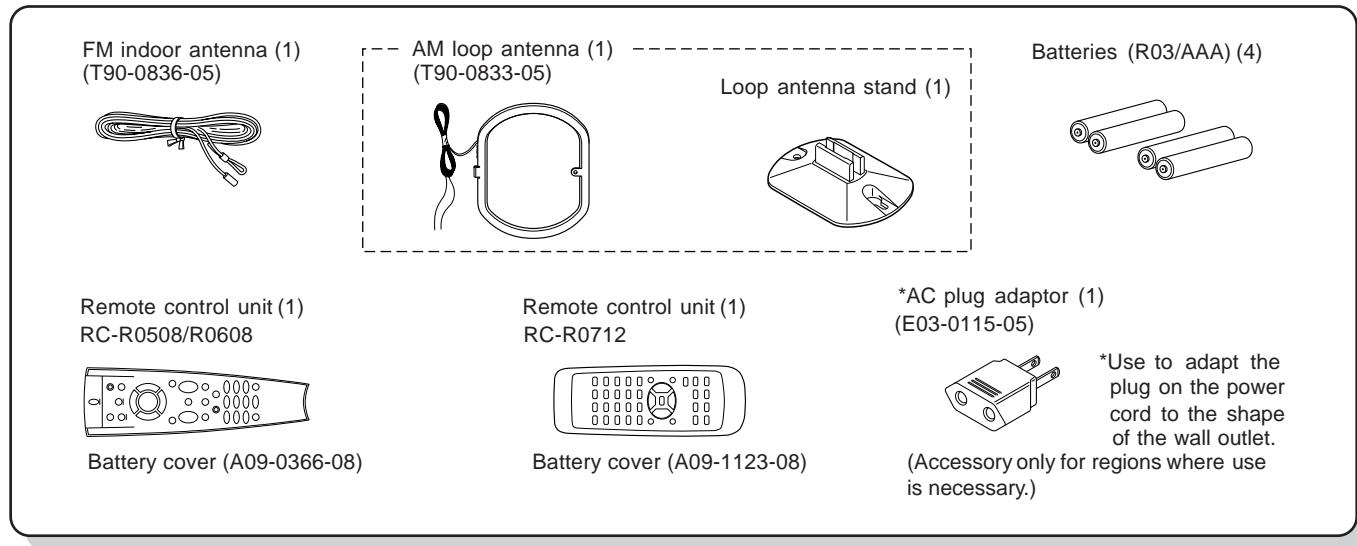
Illustration is KRF-V7020D(Y).

CONTENTS / ACCESSORIES / CAUTIONS

Contents

CONTENTS / ACCESSORIES / CAUTIONS	2	WIRING DIAGRAM	15
DISASSEMBLY FOR REPAIR	3	PC BOARD	16
CONTROLS	4	SCHEMATIC DIAGRAM	21
BLOCK DIAGRAM	6	EXPLODED VIEW	35
CIRCUIT DESCRIPTION	7	PARTS LIST	36
ADJUSTMENT	14	SPECIFICATIONS	45

Accessories



Model name vs remote controller

Remote Controller				
Model	Destinations	Parts number	Model name	Battery Cover
KRF-V7020D	X7,C7,Y7,V7,M7	A70-1268-05	RC-R0712	A09-1123-08
KRF-V8020D	X8	A70-1275-05	RC-R0508	A09-0366-08
KRF-V8020D	C8,I8,Y8,M8	A70-1277-05	RC-R0608	A09-0366-08
VR-307	K6,P6	A70-1268-05	RC-R0712	A09-1123-08
VR-309	K8,P8	A70-1277-05	RC-R0608	A09-0366-08
VR-357	K7,P7	A70-1277-05	RC-R0608	A09-0366-08

Cautions

Resetting the Microcomputer

If the microcomputer may malfunction (unit cannot be operated, or shows an erroneous display) if the power cord is unplugged while the power is ON, or due to some other external factor. If this happens, execute the following procedure to reset the microcomputer and return the unit to its normal operating condition.

For U.S.A. and Canada

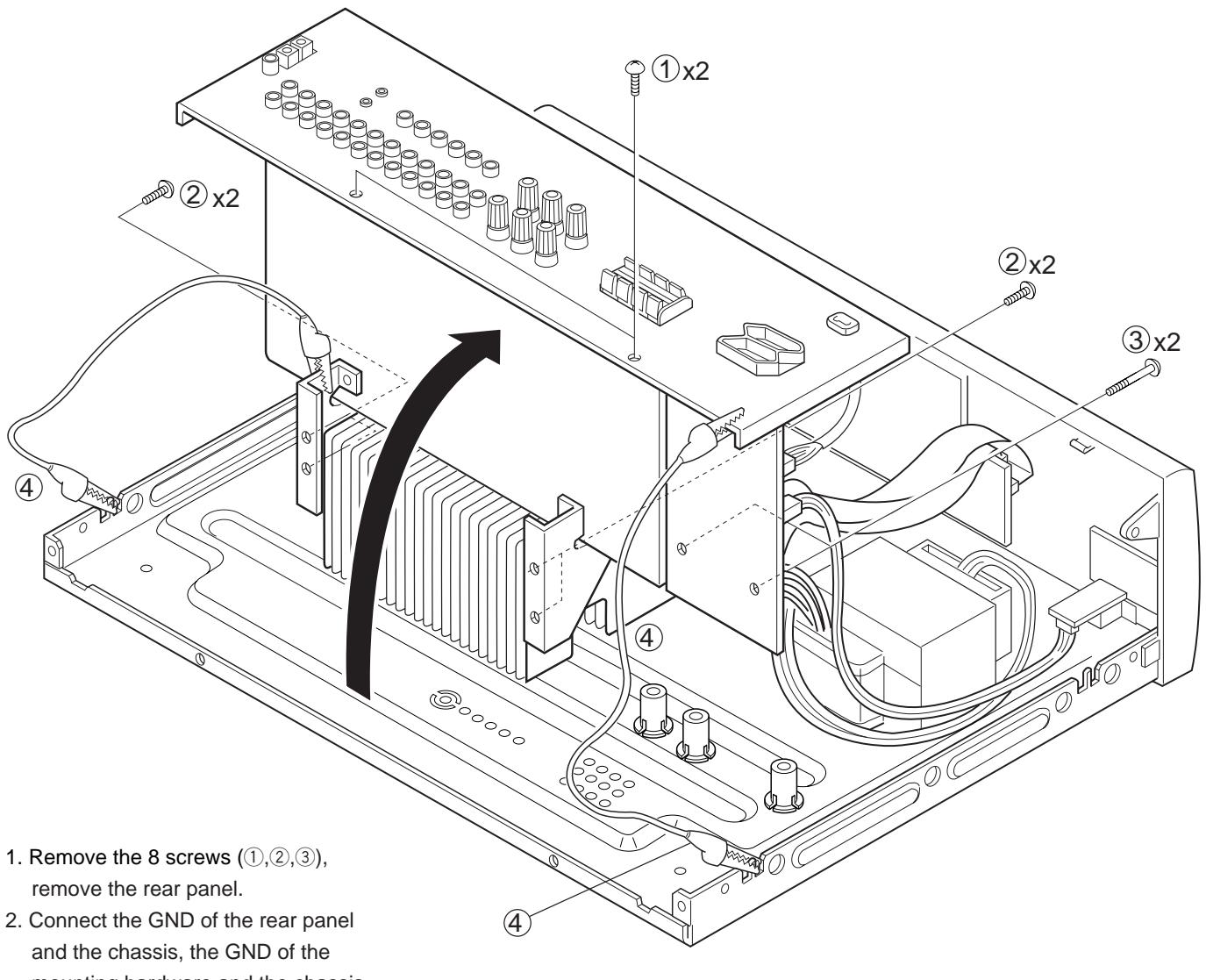
Unplug the power cord from the wall outlet, then plug it back in while holding down the POWER key.

For other countries

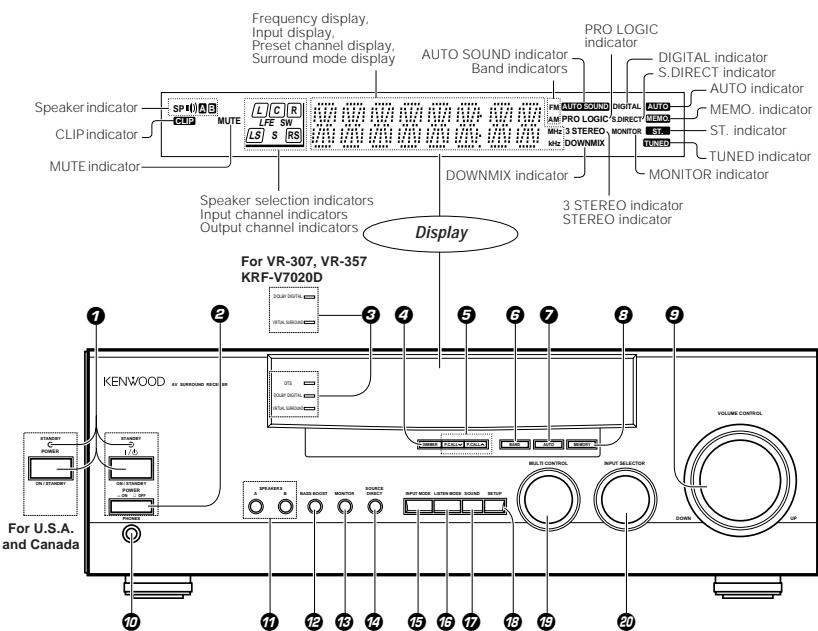
With the power cord plugged in, turn the POWER key OFF. Then, while holding down the ON/STANDBY key, press POWER.

- Please note that resetting the microcomputer will clear the contents of the memory and returns the unit to the state it was in when it left the factory.

KRF-V7020D/V8020D/VR-307/309/357
DISASSEMBLY FOR REPAIR



CONTROLS



**① POWER key
(For U.S.A. and Canada)**

Use to turn the power ON/OFF.

**STANDBY indicator
(Except for U.S.A. and Canada)**

Use to switch the power ON/STANDBY when the POWER is turned ON.

**STANDBY indicator
② POWER key
(Except for U.S.A. and Canada)**

Use to turn the main power ON/OFF.

③ Surround indicators

Lights when the receiver is in the DTS mode.
(For VR-309, KRF-V8020D)

④ DOLBY DIGITAL indicator

Lights when the receiver is in the Dolby Digital mode.

⑤ VIRTUAL SURROUND indicator

Lights when the receiver is in the Virtual Surround mode.

⑥ DIMMER key

Use to adjust the brightness of the display.
Use to select the REC MODE.

⑦ P.CALL keys

Use to call up previously registered radio stations.

⑧ BAND key

Use to select the broadcast band.

⑨ AUTO key

Use to select the auto tuning mode.

⑩ MEMORY key

Use to store radio stations in the preset memory.

⑪ VOLUME CONTROL knob

Use for headphone listening.

⑫ SPEAKERS A/B keys

Use to turn the speakers ON/OFF.

⑬ BASS BOOST key

Use to select the maximum adjustment setting for the low frequency range.

**⑭ MONITOR key
⑮ SOURCE DIRECT key
⑯ INPUT MODE key**

Use to switch between the digital and analog inputs.

⑰ LISTEN MODE key

Use to select the listening mode.

⑱ SOUND key

Use to adjust the sound quality and ambience effects.

⑲ SETUP key

Use to select the surround sound settings.

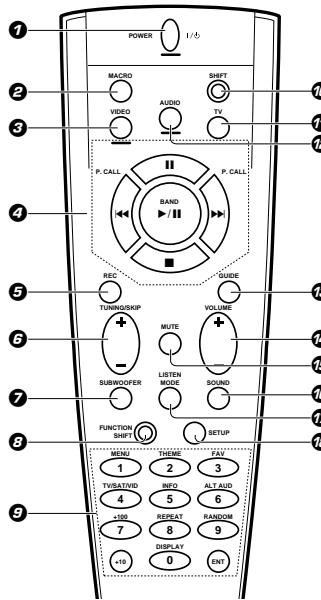
⑳ MULTI CONTROL knob

Used to make a variety of settings.

㉑ INPUT SELECTOR knob

Use to select the input sources.

Remote control unit (RC-R0608 / R0508)



There are some cases in which keys (or knobs) that have the same function on the receiver and on the remote control have different names. In the instructions of this manual, if the names of corresponding keys (or knobs) on the receiver and remote control are different, the name of the remote control key is indicated in parentheses.

㉒ POWER key

Use to turn the receiver on and off.
Use in combination with the input selector (AUDIO, VIDEO, or TV) keys and SHIFT key to turn various components on and off.

㉓ MACRO key

Use in combination with the AUDIO, VIDEO, or TV keys to execute a series of commands automatically (MACRO PLAY).

㉔ VIDEO selector key

Selects the video inputs and sets the remote control to operate the component registered at the respective input.

㉕ Multi control keys

Use to operate the selected component.

㉖ REC key

Use to operate the selected component.

㉗ TUNING/SKIP key

Use during the setup procedure to specify various settings. Use to operate the tuner or selected component.

㉘ SUBWOOFER key

Use in combination with the VOLUME +/- keys to adjust the volume of the subwoofer.

㉙ FUNCTION SHIFT key

Selects the audio inputs and sets the remote control to operate the respective KENWOOD audio component.

If you connect audio components from KENWOOD and other makers to the MD/TAPE or CD jacks, you can set the remote control to operate these components by registering the appropriate setup code at the respective input.

㉚ GUIDE key

Use in combination with the AUDIO and VIDEO keys to change the remote control mode without changing the input selector or in combination with the POWER key to turn on and off components programmed into the remote control.

㉛ VOLUME key

Use to adjust the receiver volume.

㉜ MUTE key

Use to temporarily mute the sound.

㉝ SOUND key

Use to adjust the sound quality and ambience effects.

㉞ LISTEN MODE key

Use to select the listening mode.

㉟ SETUP key

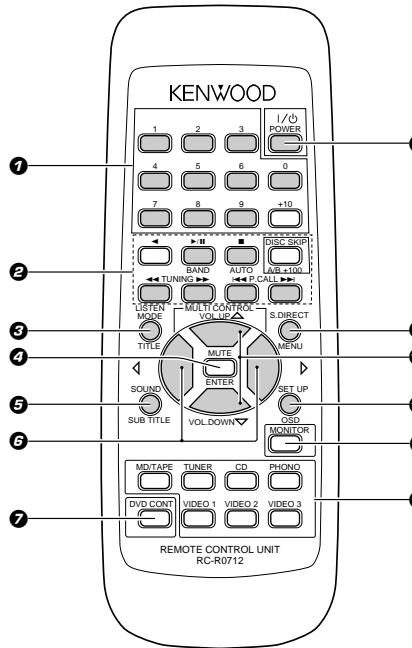
Use to select the surround sound settings.

About the STANDBY indicator

This unit has a STANDBY indicator. When the STANDBY indicator is lit, the unit consumes a small amount of power to preserve the memory. This is called STANDBY mode. This mode also lets you turn the power ON using the remote control.

KRF-V7020D/V8020D/VR-307/309/357 CONTROLS

Remote control unit (RC-R0712)



① Numeric keys

If CD or MD is selected as the input source, these keys function as numeric keys. If tuner is selected as the input source, these keys are used to call up station presets.

② Component operation keys

Use these keys to operate other components with system control connections to the receiver.

③ key

If tape is selected as the input source, this key functions as the play key for side B of the cassette (the side facing away from the front of the deck).

BAND (►/■) key

If tuner is selected as the input source, this key functions as the band selector key.

If CD is selected as the input source, this key functions as the play/pause key.

If MD is selected as the input source, this key functions as the play key.

DISC SKIP, A/B, +100 key

If CD is selected as the input source, this key functions as the multi-CD player disc skip key.

If TAPE is selected as the input source, this (A and B) of a double cassette deck.

AUTO (■)key

If tuner is selected as the input source, this key functions as the AUTO key.

If CD or MD is selected as the input source, this key functions as the stop key.

TUNING (◀◀ ▶▶) keys

If tuner is selected as the input source, these keys function as tuning keys.

If CD or MD is selected as the input source, these keys function as search keys.

P.CALL (◀◀ ▶▶) keys

If tuner is selected as the input source, these keys function as P.CALL keys.

If CD or MD is selected as the input source, these keys function as skip keys.

④ LISTEN MODE key

Use to select the listening mode.

⑤ MUTE key

Use to temporarily mute the sound.

⑥ SOUND key

Use to adjust the sound quality and ambience effects.

⑦ MULTI CONTROL key

Used to make a variety of settings.

⑧ DVD CONT key

Used to operate DVD player. While holding this key depressed, press any of the keys masked in gray in the above illustration to operate the corresponding function of a DVD player from KENWOOD.

Keys ⑨, ⑩, ⑪, ⑫ and ⑬ are given the following functions during the DVD player control operation.

⑨ :TITLE

⑩ :ENTER

⑪ :SUB TITLE

⑫ :MENU

⑬ :OSD

For details, refer to the instruction manual of your DVD player.

⑯ POWER key

Use to switch the power ON/STANDBY when the POWER is turned ON.

⑰ SOURCE DIRECT key

⑱ VOLUME CONTROL key

⑲ SETUP key

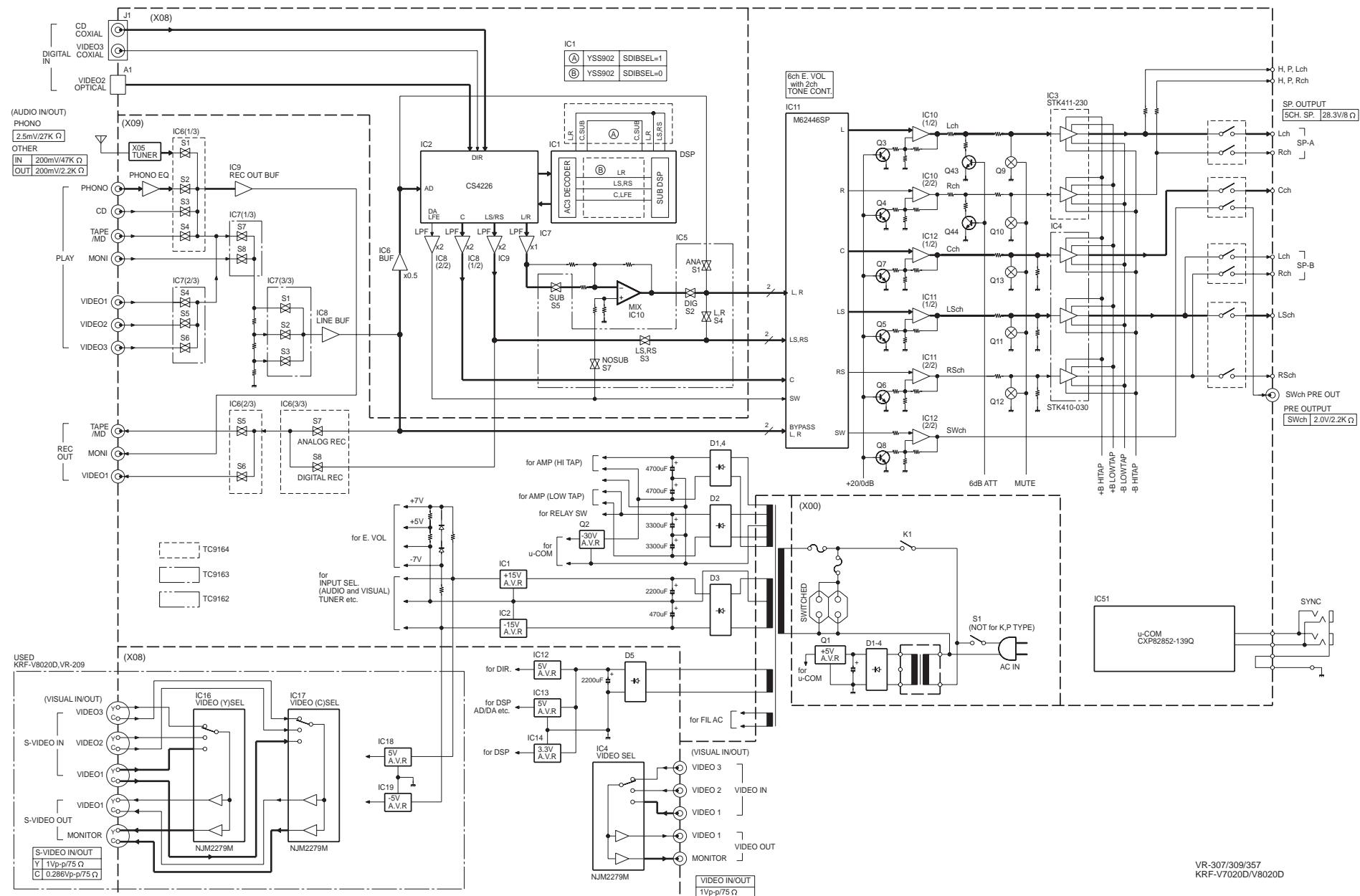
Use to select the surround sound settings.

⑳ MONITOR key

㉑ Input selector keys

Use to select the receiver's input source.

BLOCK DIAGRAM



CIRCUIT DESCRIPTION

1. The back up item and initialization condition

1-1 Back up

• POWER	: POWER OFF	• FRONT (L,R) LEVEL	: 0dB
• VOLUME LEVEL	: -66dB	• CENTER LEVEL	: 0dB
• AUDIO INPUT SELECTOR	: TUNER	• REAR (LS,RS) LEVEL	: 0dB
• VIDEO INPUT SELECTOR	: VIDEO 1	• SUB WOOFER LEVEL	: 0dB
• SPEAKER A	: ON	• MIDNIGHT	: OFF
• SPEAKER B	: OFF	• BAND	: FM
• BASS	: 0dB	• FM FREQUENCY	: 87.50MHz
• TREBLE	: 0dB	• AM FREQUENCY	: 531kHz(CH.SPACE 9kHz) : 530kHz(CH.SPACE 10kHz)
• INPUT LEVEL	: 0dB	• PRESET CH.	: [--ch]
• SOURCE DIRECT	: OFF	• PRESET MEMORY FREQUENCY	: PRESET MEMORY FREQUENCY
• MONITOR	: OFF	• TUNING MODE	: AUTO
• DIMMER	: DIMMER 1 (LIGHTEST)		
• LISTEN MODE	: STEREO		
• VIRTUAL SURROUND	: OFF		
• INPUT MODE	: DIGITAL AUTO		
• SUB WOOFER	: YES(ON)		
• FRONT SP. SIZE	: NORMAL		
• CENTER SP. SIZE	: NORMAL		
• SURROUND SP. SIZE	: NORMAL		
• DISTANCE	: Fch 10ft/3m : Cch 10ft/3m : Sch 10ft/3m		

2. Condition by the destination or model

(0 : Pull down, 1 : Pull up)

TYPE	BAND	Reception frequency	Channel space	IF	PLL standard frequency	Diode sw			
						⑦ DSW3	⑧ DSW2	⑨ DSW1	⑩ DSW0
K1 1700	FM	87.5MHz~108.0MHz	100kHz	+10.7MHz	25kHz	0	0	0	0
	AM	530kHz~1700kHz	10kHz	+450kHz	10kHz				
K2 1610	FM	87.5MHz~108.0MHz	100kHz	+10.7MHz	25kHz	0	0	0	1
	AM	530kHz~1610kHz	10kHz	+450kHz	10kHz				
K4 1700 RBDS	FM	87.5MHz~108.0MHz	100kHz	+10.7MHz	25kHz	1	0	1	0
	AM	530kHz~1700kHz	10kHz	+450kHz	10kHz				
E1	FM	87.5MHz~108.0MHz	50kHz	+10.7MHz	25kHz	0	0	1	1
	AM	531kHz~1602kHz	9kHz	+450kHz	9kHz				
E3 RDS	FM	87.5MHz~108.0MHz	50kHz	+10.7MHz	25kHz	0	1	0	1
	AM	531kHz~1602kHz	9kHz	+450kHz	9kHz				
Q1 RDS	FML	65.0MHz~74.0MHz	10kHz	+10.7MHz	5kHz	1	0	1	1
	FMH	87.5MHz~108.0MHz	50kHz	+10.7MHz	5kHz				
	AM	531kHz~1602kHz	9kHz	+450kHz	9kHz				
M	K2/E1 is switched with only the setting of DSW1 (X11 : S601). (DSW1 = 0 : K2 type, 1 : E1 type)					0	0	X	1

3. TEST MODE

[setting method]

While pressing INPUT SELECTOR key, plug the AC power cord into an AC outlet (K, P type) or turn on the AC POWER switch. When a set is set up in test mode condition a set becomes the following condition. Automatic POWER ON. All indicator tube (FL) and CLIP INDICATOR LED are lighted. The other LED are flashed.

A backup at the thing except ON/OFF of POWER is initialized.

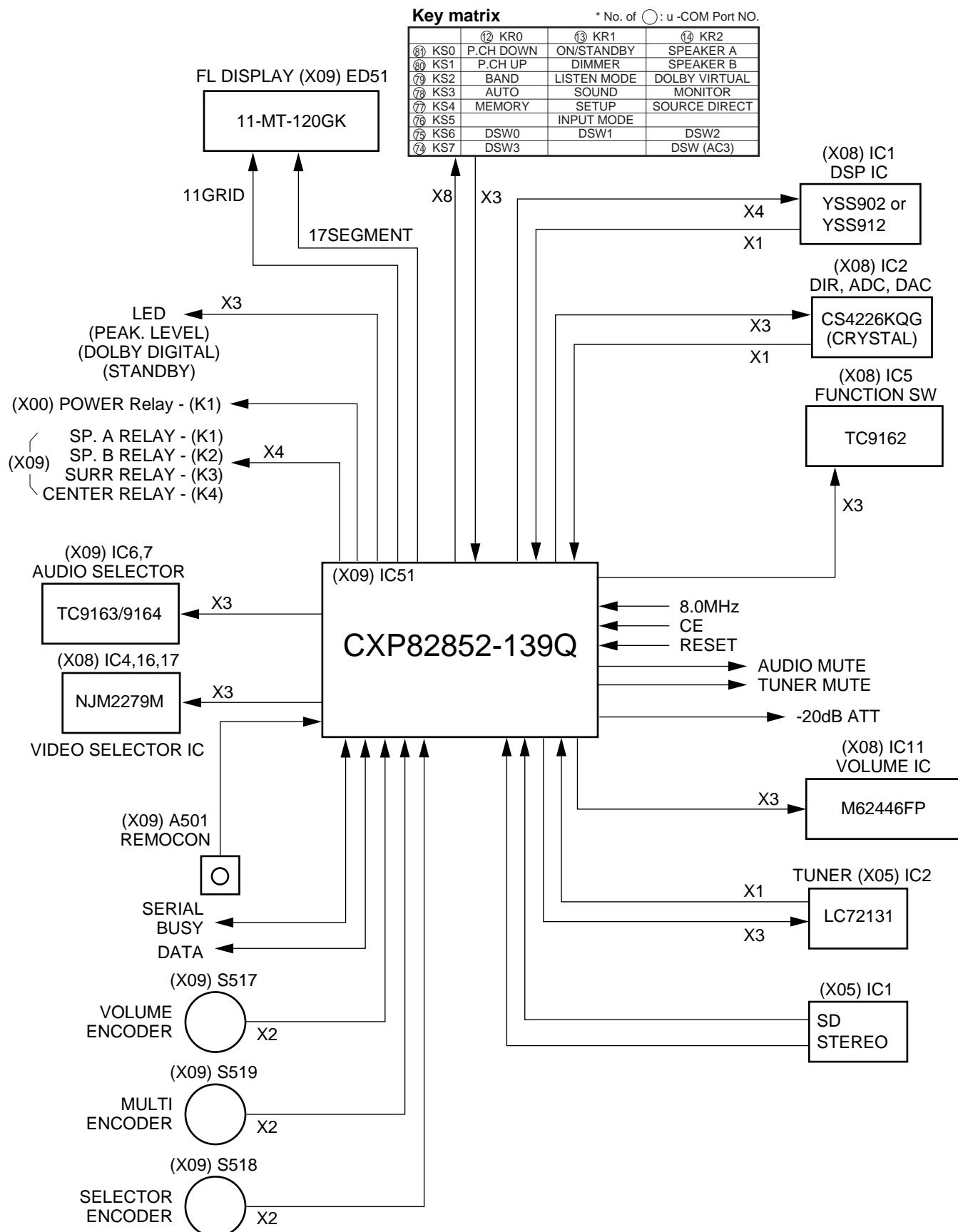
[cancel method]

The power supply is turned off.

CIRCUIT DESCRIPTION

4. Microprocessor CXP82852-139Q(X09 : IC51)

4-1 Microprocessor periphery block diagram



CIRCUIT DESCRIPTION

4-2 Pin description

Pin No.	Pin Name	I/O	Description
1,2	G10,11	O	Display grids 10,11
3	None	-	Ic test mode port.
4,5	None	I	No connect
6	AUDIO	I	Audio signal detection port. L=AUDIO.
7	VOL.ENC.A	I	Volume encoder A(clockwise) input.
8	REMOCON	I	Remote control signal input.
9	VOL.ENC.B	I	Volume encoder B(counterclockwise) input.
10,11	None	O	Ic test mode port.
12-14	KR0-2	I	Key return 0-2.
15	PROTECT	I	Protection signal detection port. H=PROTECT.
16	S.DATA	I/O	Serial DATA signal.
17	S.BUSY	I/O	Serial BUSY signal.
18	SP.A+B	O	Speaker on both A sp. and B sp.
19	SW.6dB.ATT	O	Sub woofer 6dB attenuation
20	SEL.ENC.A	I	Selector encoder A(clockwise) input.
21	SEL.ENC.B	I	Selector encoder B(counterclockwise) input.
22	MULTI.ENC.A	I	Multi encoder A(clockwise) input.
23	MULTI.ENC.B	I	Multi encoder B(counterclockwise) input.
24	SL16/XS8	I	SL16/XS8 selector. H=16bit.
25	DSP.SCK	O	DSP(YSS902/912) CLOCK output.
26	DSP.SI	I	DSP(YSS902/912) DATA input.
27	DSP.SO	O	DSP(YSS902/912) DATA output.
28	Vdd	-	Analog power supply(+5V)
29	None	I	No connect
30	CH.SPACE	O	Channel space chengeover H=E1 type
31	DSP.CS	O	DSP(YSS902/912) CS output.
32	CODEC.CS	O	CS4226 CS output.
33	PLL.DO	I	PLL ic DO signal input .
34	PLL.ST	I	Tuner STEREO signal detection port. L=STEREO.
35	PLL.SD	I	Tuner SD signal detection port. L=TUNED.
36	RCV.CE	I	Receiver CHIP ENABLE signal port. L=ENABLE.
37	Avss	-	Analog GND.
38	RESET	I	Microprooessor RESET signal.
39,40	8MHz	I	Main clock generation(8MHz).
41	Vss	-	Microprocessor GND.
42	None	I	No connect
43	TEX	-	GND.
44	Vdd	-	Power supply(+5V).
45	Vfdp	-	Power supply(-33V).
46	SEL.ST1	O	TC9162AF/63AF/64AF ST1 output. H=LATCH.
47	PLL.DT	O	PLL ic DATA signal output .
48	PLL.CK	O	PLL ic CLOCK signal output .
49	PLL.CE	O	PLL ic CE signal output .
50	T.TUNE	O	Tuner mute control. L=MUTE ON
51	A.MUTE	O	Audio mute control. L=MUTE ON
52	SEL.ST2	O	TC9163/9164 ST2 output
53	20dB.ATT	O	Volume 20dB attenuation control. H=ATT. OFF
54	VOL.DT	O	Volume ic (M62446SP) DATA control.
55	VOL.CK	O	Volume ic (M62447SP) CLOCK control. H=ACTIVE
56	VOL.ST	O	Volume ic (M62448SP) ST control. H=ACTIVE
57	DSP.SCB	O	DSP(YSS902/912) chip selector
58	VCR.A	O	Video ic (NJM2279M) cont1 control. H/L=STATIC
59	VCR.B	O	Video ic (NJM2279M) cont3 control. H/L=STATIC
60	FA.RLY	O	Front A speaker relay control. H=RELAY ON

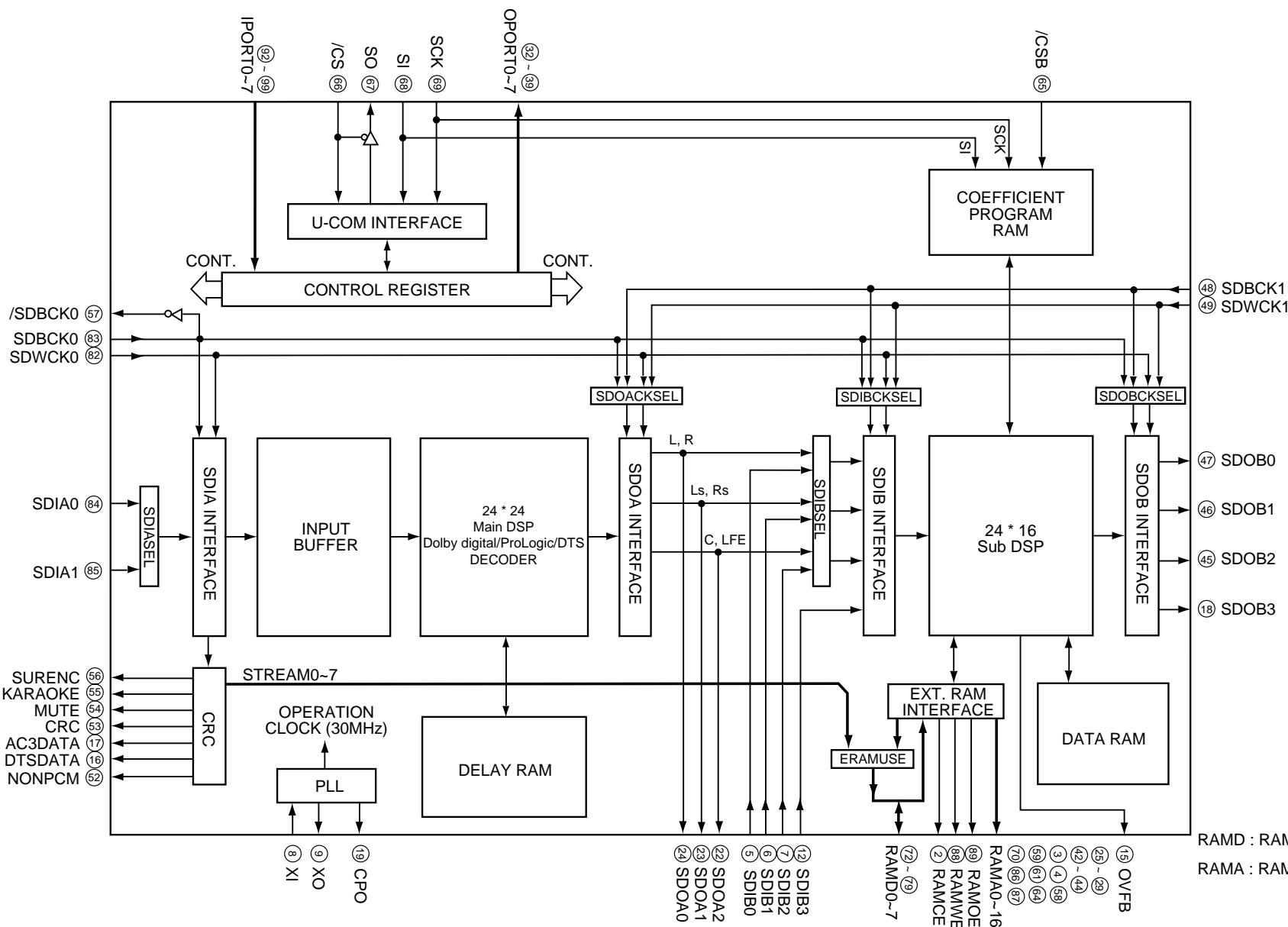
CIRCUIT DESCRIPTION

Pin No.	Pin Name	I/O	Description
61	FB.RLY	O	Front B speaker relay control. H=RELAY ON.
62	C.RLY	O	Center speaker relay control. H=RELAY ON
63	S.RLY	O	Rear speaker relay control. H=RELAY ON
64	POWER.RLY	O	Power relay control. H=RERAY ON
65	STANDBY.LED	O	Standby LED control.H=LED ON
66	DOL.DIG.LED	O	Dolby digital LED control.H=LED ON
67	DOL.VIR.LED	O	Dolby virtual LDE control.H=LED ON
68	DTS LED	O	DTS LED control. H=LED ON
69,70	None	O	No connect
71	PACk CTL	O	Non oscillation of power pack ic at power off. L=STOP OSCILLATION
72	DSP.IC	O	DSP(YSS902/912)/CS4226 initial clear .
73	None	O	No connect
74-81	P1-8/KS7-0	O	Display segments 1-8 & key scan 7-0.
82-88	P9-15	O	Display segments 9-15.
89	Vdd	O	Microprocessor power supply(+5V)
90,91	P16,17	O	Display segments 16,17
92-100	G1-9	O	Display grids 1-9.

CIRCUIT DESCRIPTION

KRF-V7020D/V8020D/VR-307/309/357

5. Dolby digital/DTS IC: YSS902/YSS912 (X08: IC1)



CIRCUIT DESCRIPTION

5-2 Pin description

Pin No.	Pin Name	I/O	Descriptions
1	Vdd1	-	Power supply(+5V)
2~4	-	-	No connect
5~7	SDIB0~2	O	PCM output port for sub DSP
8	XI	I	Crystal oscillation port.(902:6.25~50.0MHz,912:12.288MHz)
9	XO	O	Crystal oscillation port.
10	Vss	-	GND
11	AVdd	-	Power supply(+3.3V) for PLL
12~18	-	-	No connect
19	CPO	O	PLL output port.
20	AVss	I	GND
21	Vdd2	-	Power supply(+3.3V)
22	SDOA2	O	PCM output port from main DSP
23	-	-	No connect
24	SDOA0	O	PCM output port from main DSP
25~29	-	-	No connect
30	Vss	-	GND
31	Vdd1	-	Power supply(+5V)
32	-	-	No connect
33	OPORT1	O	-
34~39	-	-	No connect
40	Vss	-	GND
41	Vdd2	-	Power supply(+3.3V)
42~44	-	-	No connect
45	SDO2	O	PCM output port from sub DSP(C,LFE/SWch)
46	SDO1	O	PCM output port from sub DSP(LS,RSch)
47	SDO0	O	PCM output port from sub DSP(FL,FRch)
48,49	-	-	No connect
50	Vss	-	GND
51	Vdd2	-	Power supply(+3.3V)
52~59	-	-	No connect
60	Vss	-	GND
61	-	-	No connect
62	/IC	I	Initial clear port.
63,64	-	-	No connect
66	/CS	I	Microprocessor interface chip selector input port.
67	SO	O	Microprocessor interface serial data output port.
68	SI	I	Microprocessor interface serial data input port.
69	SCK	I	Microprocessor interface clock input port.
70	-	-	No connect
71	Vdd1	-	Power supply(+5V)
72~79	-	-	No connect
80	Vss	-	GND
81	Vdd2	-	Power supply(+3.3V)
82	SDIWCK 0	I	Word clock for SD input ports.
83	SDIBCK 0	I	Bit clock for SD input ports.
84	SDIA	I	AC3 bit stream data input port.
85~89	-	-	No connect
90	Vss	-	GND
91	Vdd2	-	Power supply(+3.3V)
92,93	-	-	No connect
94	IPORT5	I	Input port register
95	-	-	No connect
96~99	IPORT3~0	I	Input port register
100	Vss	-	GND

CIRCUIT DESCRIPTION

6. SURROUND FUNCTION IC : TC9162AF(X08:IC5)

[○ : ON, X: OFF]

INPUT	(PIN NO.)	(2,27)	(3,26)	(5,24)	(6,23)	(8,21)	(9,20)	(11-)	(18-)
	SW NO.	R1,L1	R2,L2	R3,L3	R4,L4	R5,L5	R6,L6	R7	L7
	OUTPUT	ANALOG	DIGITAL	RS/LS	R/L	SUB W.	VIDEO3	NO SUB W.	NO SUB W.
TEST TONE	X	○	○	X			○		
INPUT DIGITAL	X	○					○		
INPUT ANALOG	○	X					○		
FRONT LARGE	X	X					○		
STEREO	X	X					○		
S. DIRECT	○	X					○		
SP. A,B ON			○	X			○		
SP. A ON			X	○			○		
SP. B ON			X	○			○		
SP. A,B OFF			○	X	X	○	○	X	
SUB W. ON					X	○	○		X
SUB W. OFF					○	○	X		○

7. AUDIO INPUT SELECTOR IC : TC9164AF (X09:IC6)

[○ : ON, X: OFF]

INPUT	(PIN NO.)	(2,27)	(3,26)	(4,25)	(5,24)	(7,22)	(9,21)	(10,19)	(11,18)
	SW NO.	R1,L1	R2,L2	R3,L3	R4,L4	R5,L5	R6,L6	R7,L7	R8,L8
	OUTPUT	TUNER	PHONO	CD	MD/TAPE	MD/TAPE REC	VIDEO 1 REC	ANALOG L/R	DIGITAL L/R
TUNER	○	X	X	X	○	○			
PHONO	X	○	X	X	○	○			
CD	X	X	○	X	*1	*1			
MD/TAPE	X	X	X	○	X	○			
VIDEO1	X	X	X	X	○	X			
VIDEO2	X	X	X	X	*1	*1			
VIDEO3	X	X	X	X	*1	*1			
MONITER	*2	*2	*2	*2	*3	*3			
ANALOG							○	X	
INPUT DIGITAL STEREO							X	○	
INPUT DIGITAL except STEREO							○	X	

*1: It's open except STEREO/VIRTUAL on DTS.

*2: It's the same with MONITOR output.

*3: It's the same MONITOR OFF.

8. AUDIO INPUT SELECTOR IC : TC9162AF (X09:IC7)

[○ : ON, X: OFF]

INPUT	(PIN NO.)	(2,27)	(3,26)	(4,25)	(6,23)	(7,22)	(8,21)	(10,19)	(11,18)
	SW NO.	R1,L1	R2,L2	R3,L3	R4,L4	R5,L5	R6,L6	R7,L7	R8,L8
	OUTPUT	ATT OFF	ATT1	ATT2	VIDEO1	VIDEO2	VIDEO3	COM	MONITOR
TUNER					X	X	X	○	X
PHONO					X	X	X	○	X
CD					X	X	X	○	X
MD/TAPE					X	X	X	○	X
VIDEO1					○	X	X	X	○
VIDEO2					X	○	X	○	X
VIDEO3					X	X	○	○	X
MONITER					*1	*1	*1	○	X
INPUT 0dB	○	X	X						
INPUT -3dB	X	○	X						
INPUT -6dB	X	X	○						

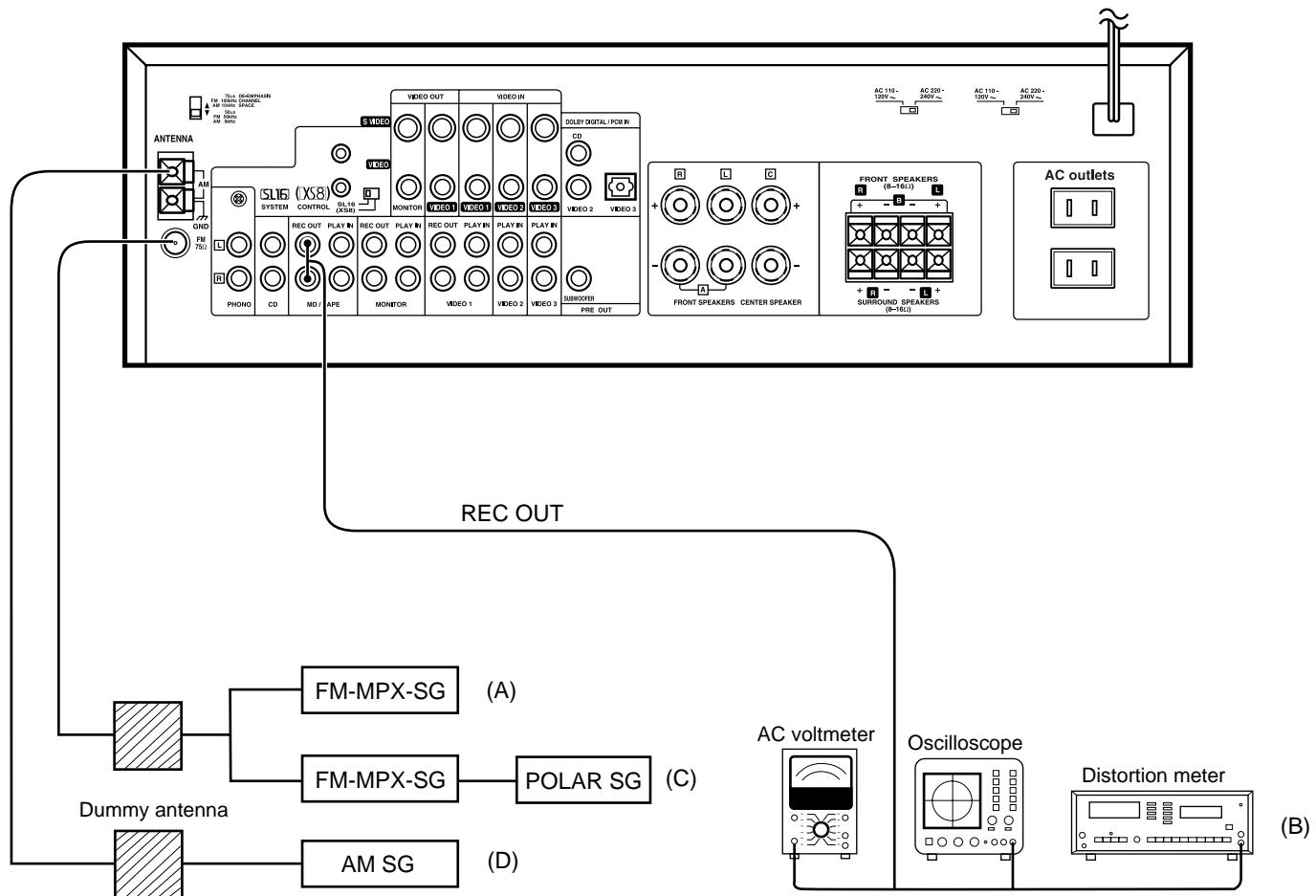
*1: It's the same with display input selector on MONITOR output.

9. SPEAKER SETUP

SUB WOOFER	YES				YES or NO					
FRONT SP.	NORMAL				LARGE					
CENTER SP.	NORMAL(YES)		NO		LARGE		NORMAL		NO	
SURROUND SP.	NORMAL(YES)	NO	NORMAL(YES)	NO	LARGE	NORMAL	NO	NORMAL(YES)	NO	NORMAL(YES)
CENTER MODE (PRO LOGIC)	NORMAL	-	PHANTOM	-	WIDE	WIDE	-	NORMAL	-	PHANTOM

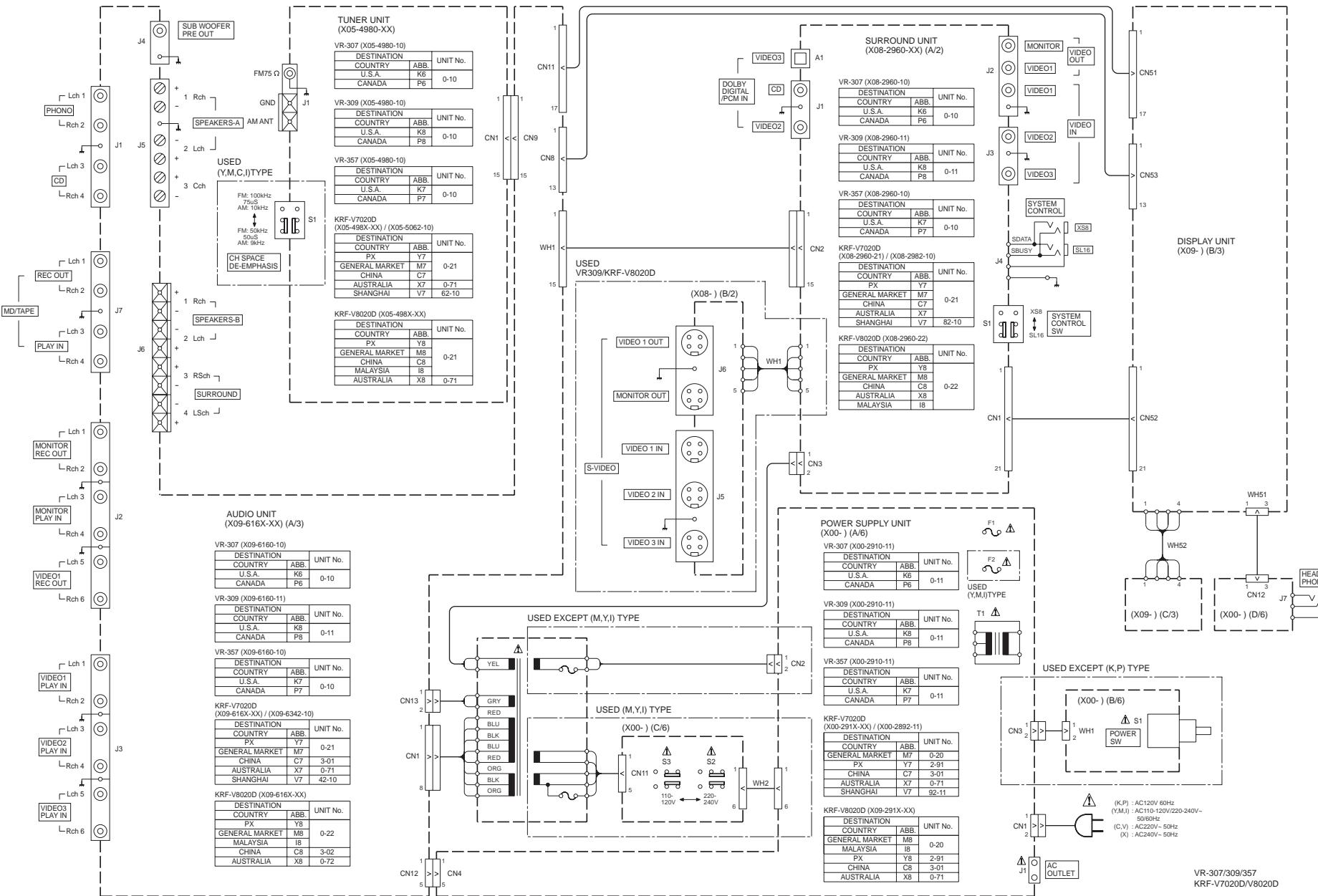
ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	REceiver SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION		SELECTOR : FM					
1	DISTORTION (STEREO)	(A) 98.0MHz 1kHz, ± 68.25 kHz dev. Selector : L or R Pilot : ± 6.75 kHz dev. 70dBf(ANT. input)	(B)	98.0 MHz	IFT (TUNER A1)	Minimum distortion (L or R)	
2	TUNING LEVER	(A) 98.0MHz MONO 1kHz, ± 75 kHz dev. 25dBf(ANT. input)	(B)	MONO 98.0 MHz	VR1 (TUNER UNIT)	Adjust VR1 and stop at the point where ED51 (TUNED) goes on.	

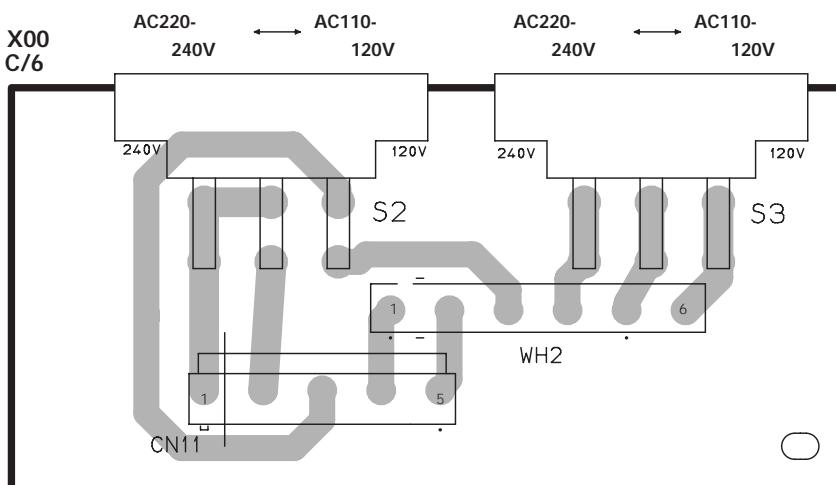
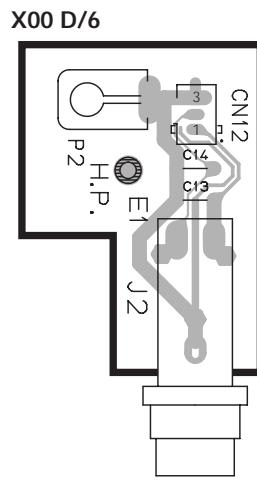
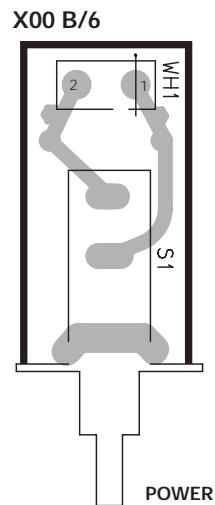
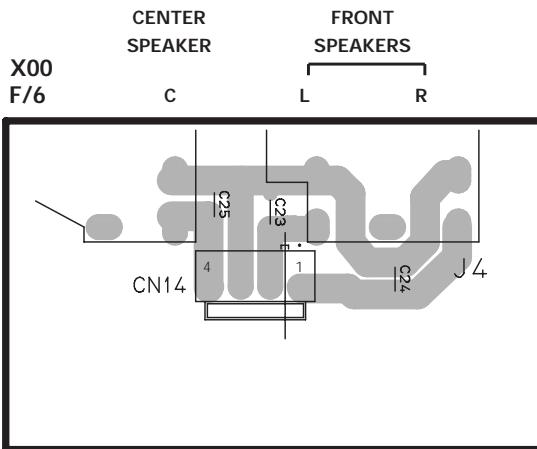
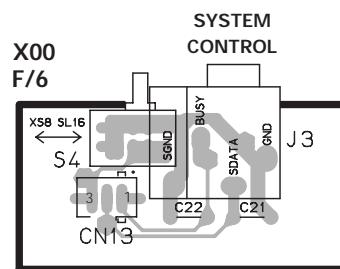
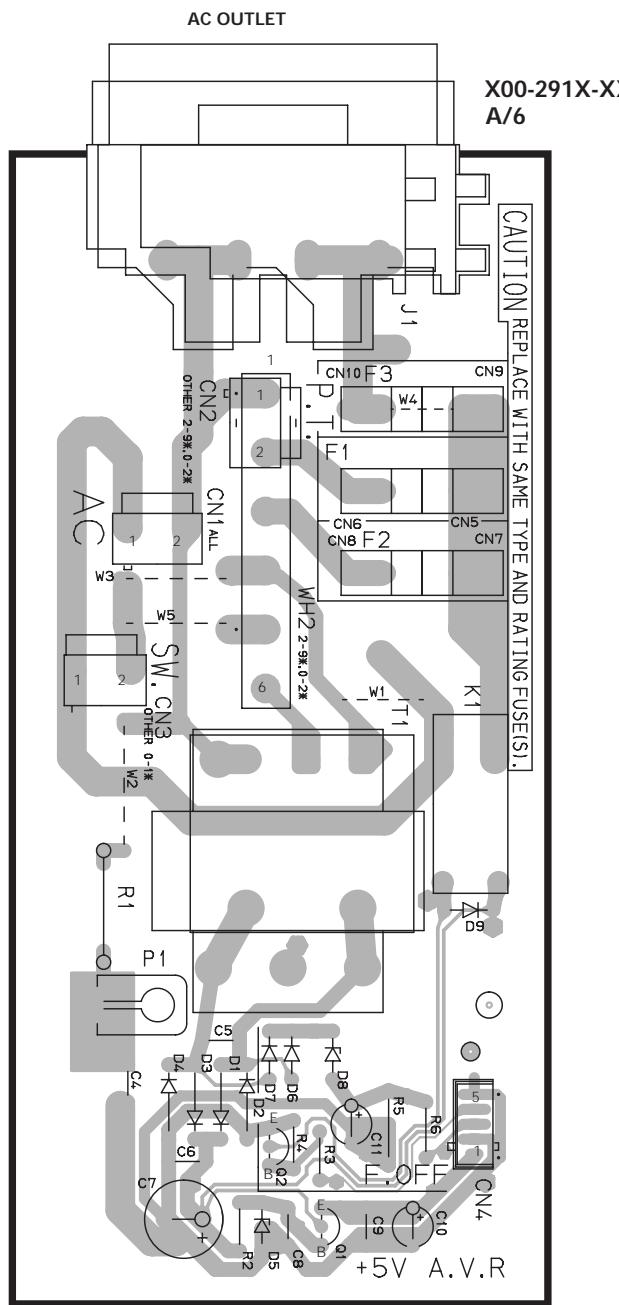


WIRING DIAGRAM

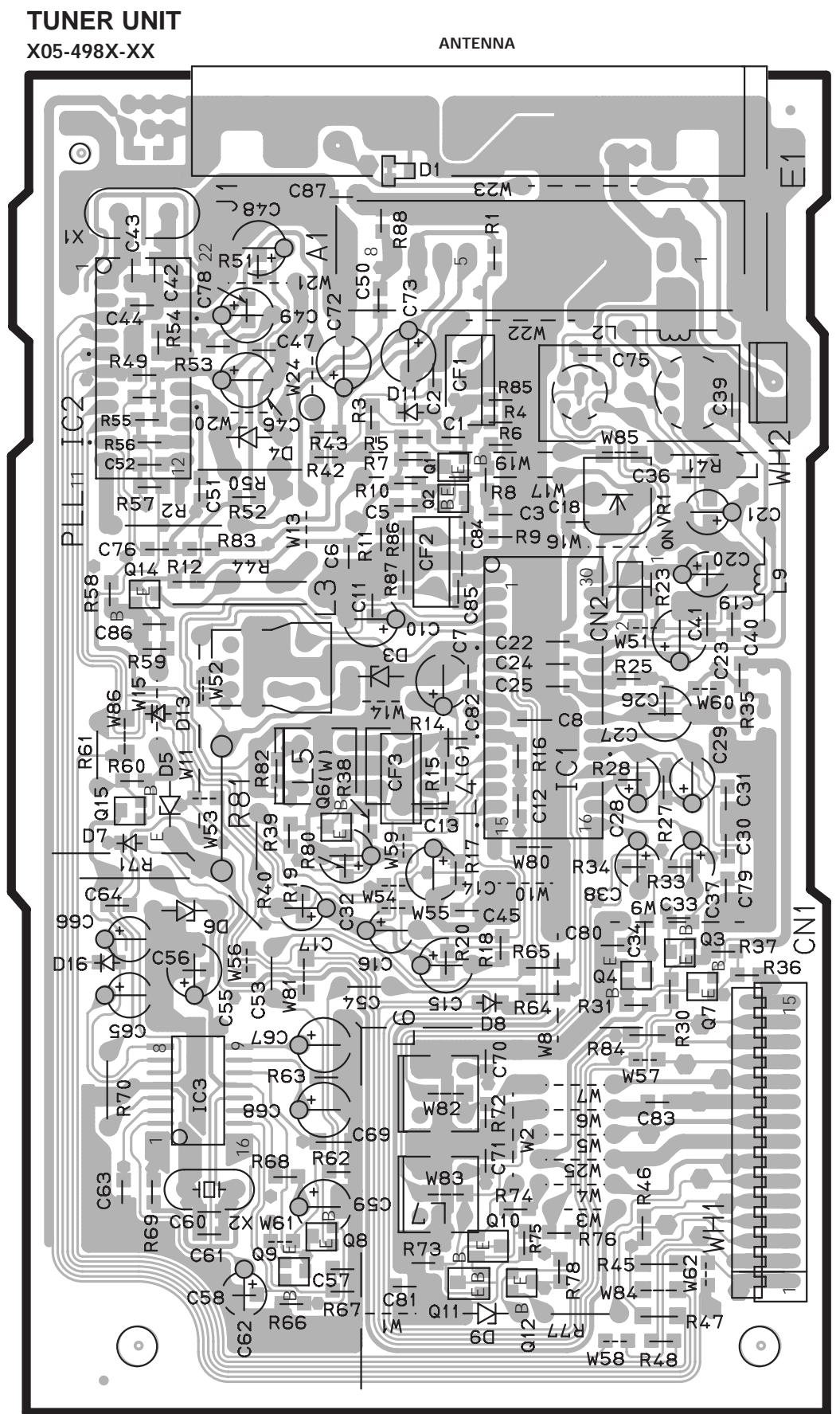
KRF-V7020D/V8020D/VR-307/309/357



PC BOARD(Component side view) POWER SUPPLY UNIT



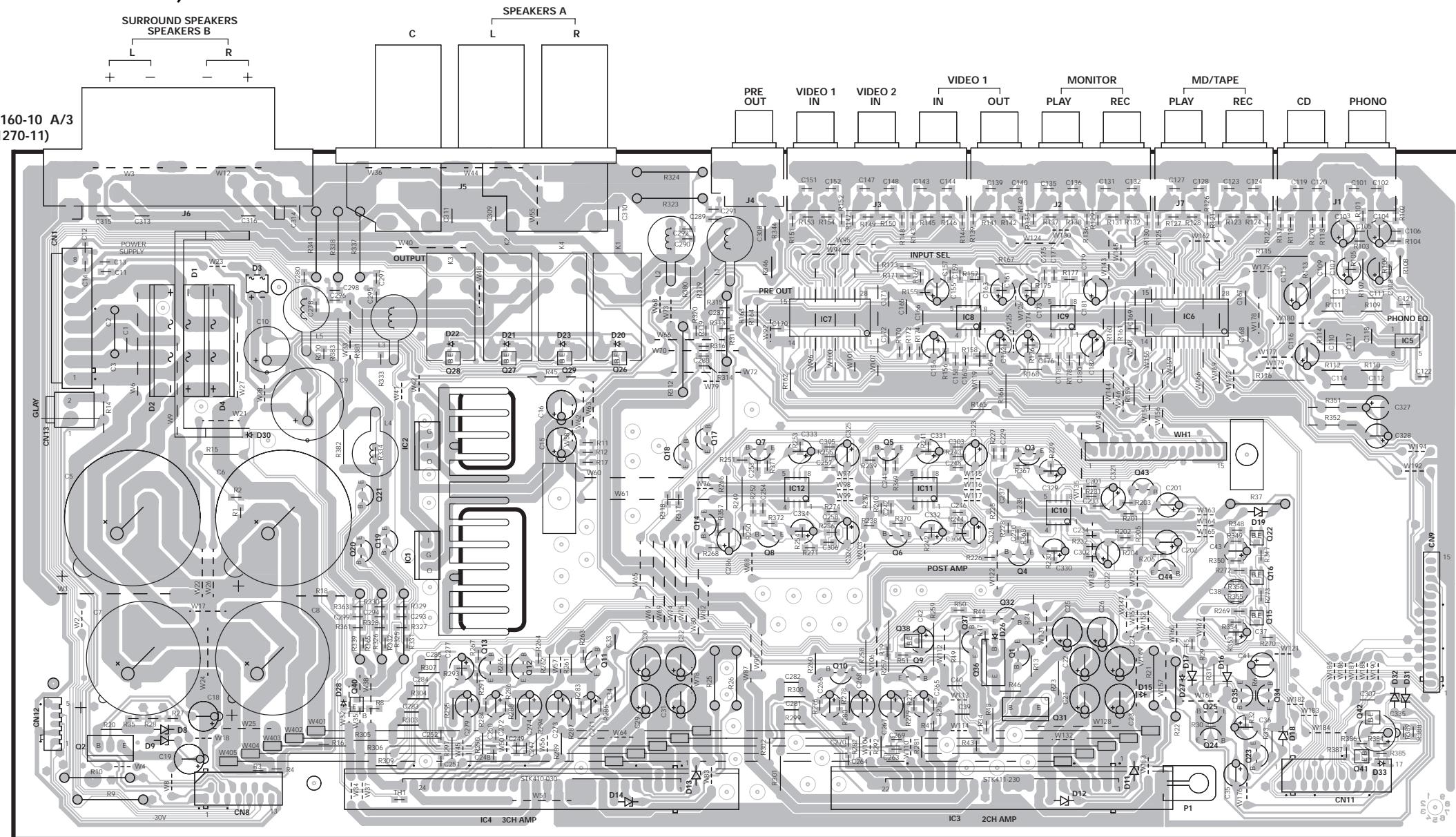
PC BOARD(Component side view)



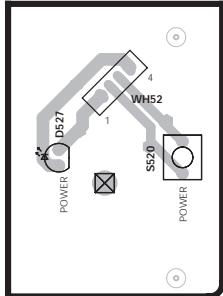
PC BOARD(Component side view)

AUDIO UNIT

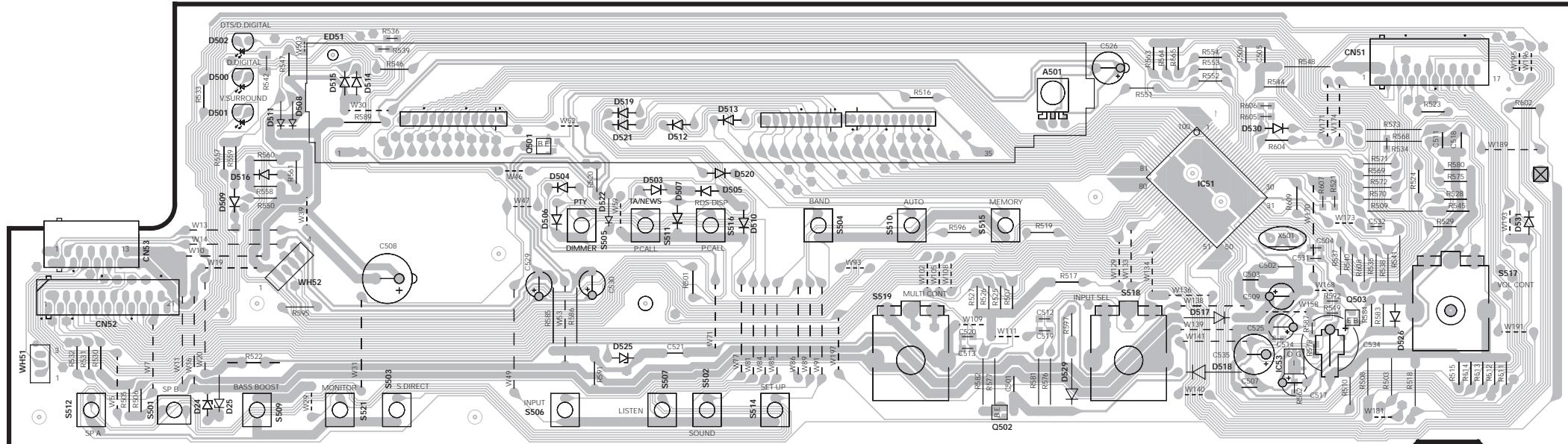
X09-6160-10
(J70-1270-1)

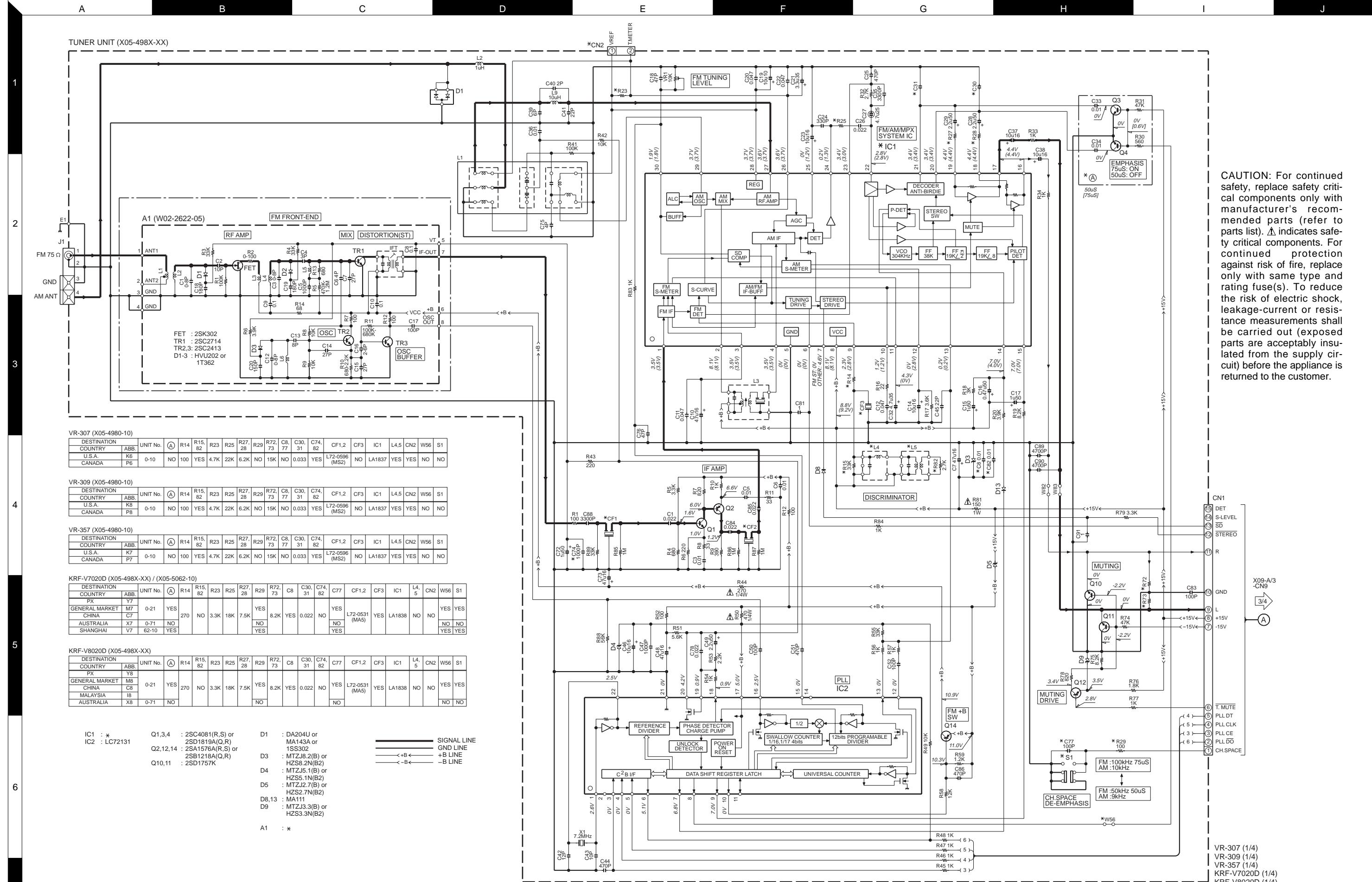


X09 C/3



X09 B/3





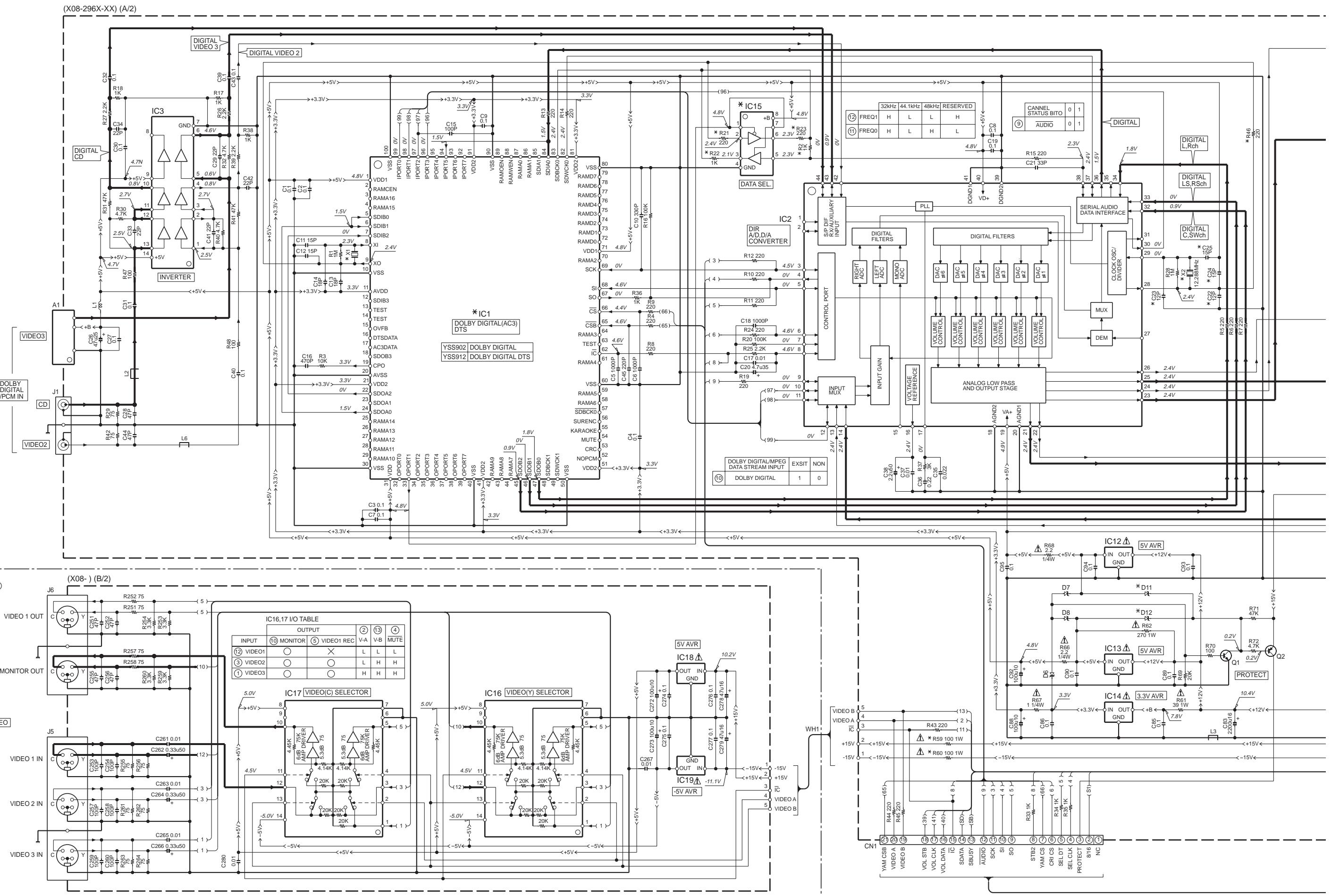
The DC voltage is an actual reading measured with a high impedance type voltmeter as the AM/FM signal generator is specified to the conditions as shown in the list below. The measurement value may vary depending on the measuring instruments used or on the product. The value shown in () is actual reading measured in the AM mode.

MODE	CARRIER	MODULATION		ANT INPUT
		FREQUENCY	DEVIATION	
FM	98MHz	1kHz	STEREO 67.5kHz 7.5kHz(Pilot)	60dB
AM	1000(999)kHz	400Hz	MONO 30% MOD	60dB

Y05-3760-10

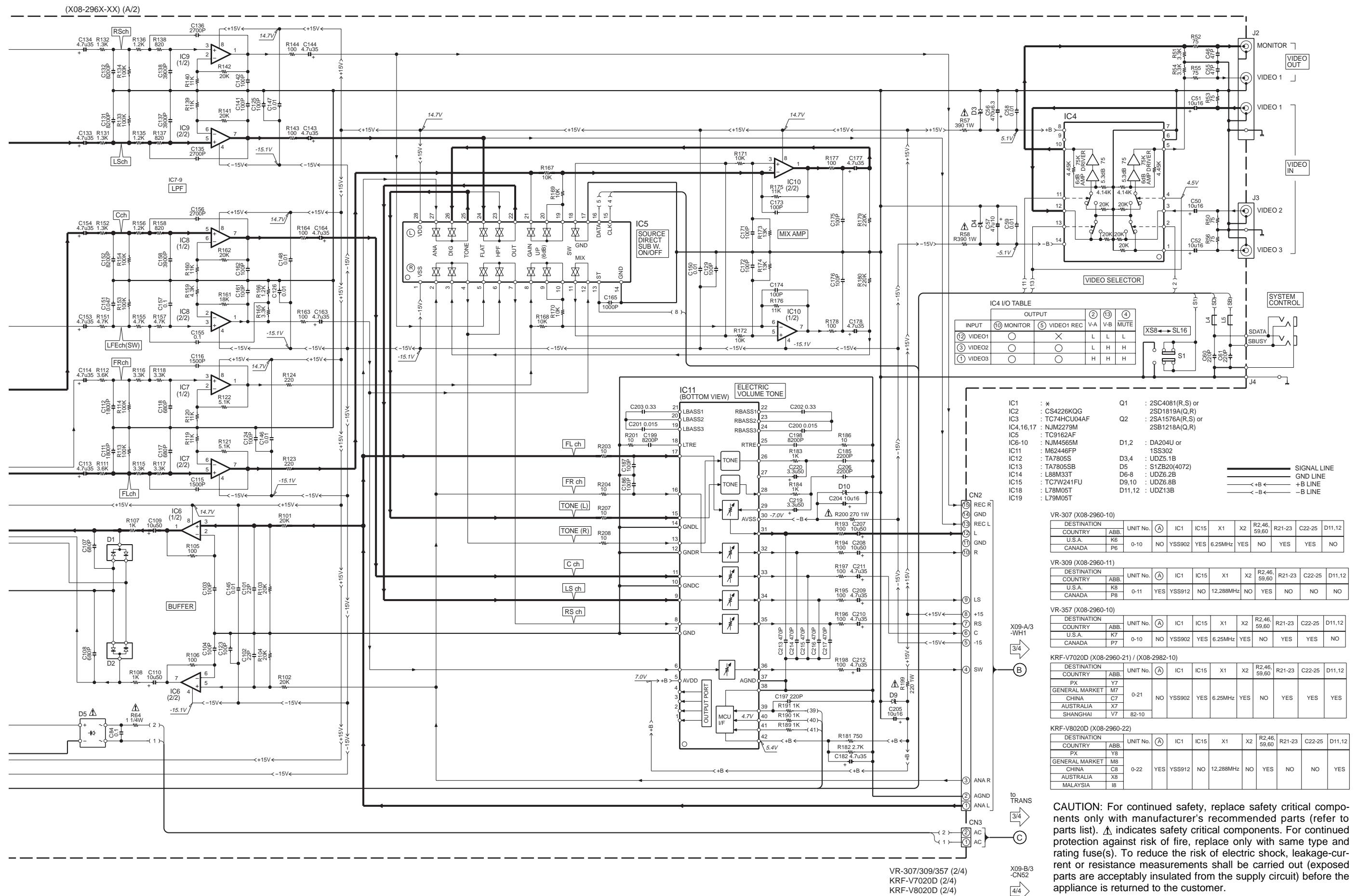
KRF-V7020D/V8020D/VR-307/309/357

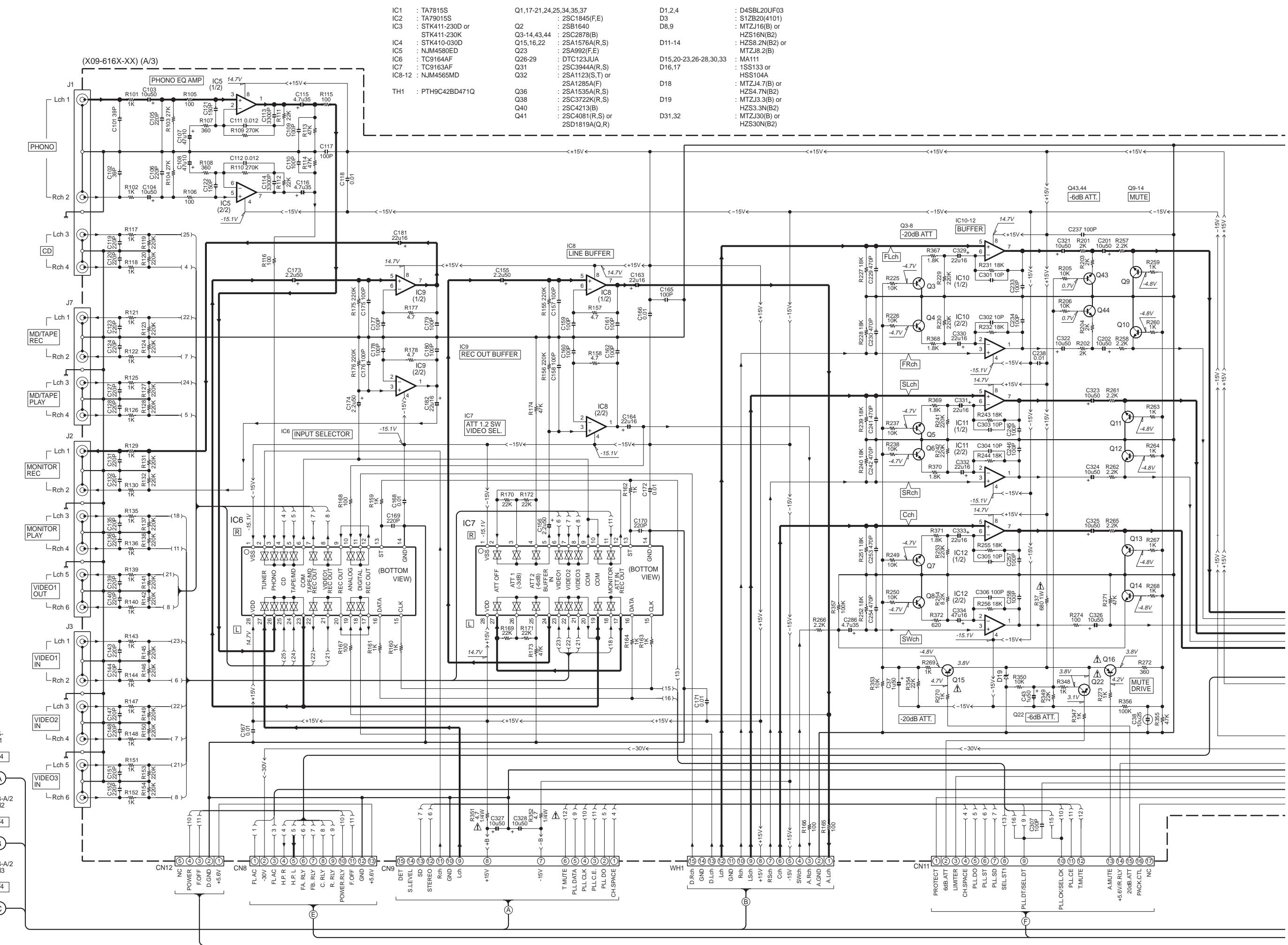
KENWOOD



The DC voltage is an actual reading measured with a high impedance type voltmeter with a cassette loaded at playback mode. The measurement value may vary depending on the measuring instruments used or on the product. Bias circuit DC voltage is measured while in the record mode.

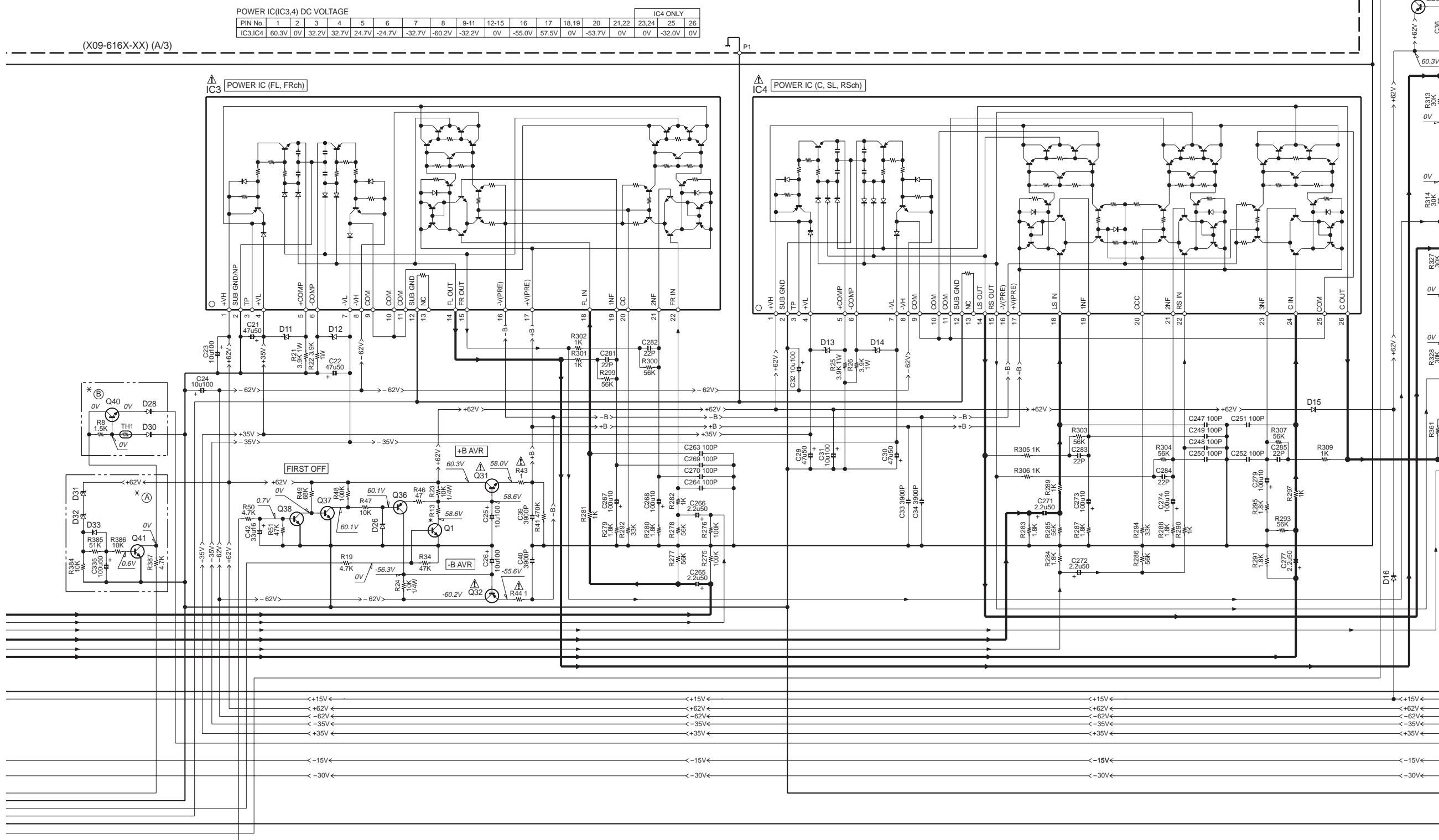
DOLBY and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation. Noise reduction circuit made under license from Dolby Laboratories Licensing Corporation.





CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with a cassette loaded at playback mode. The measurement value may vary depending on the measuring instruments used or on the product. Bias circuit DC voltage is measured while in the record mode.

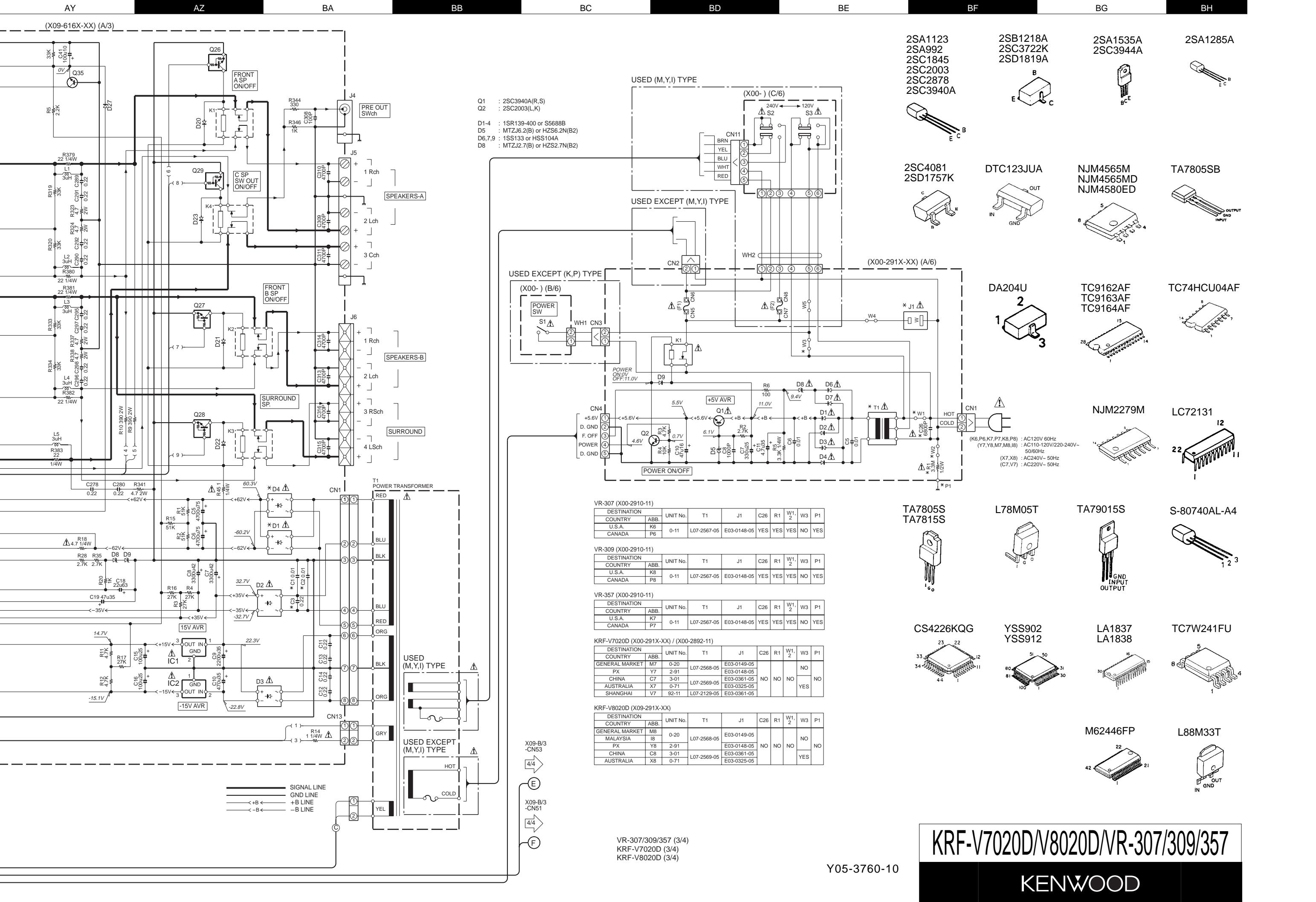


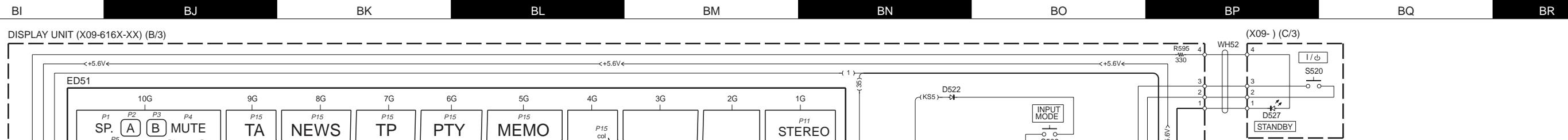
VR-309 (X09-6160-11)		UNIT No.	(A) (B)	R13	C1,2	C3	D1
COUNTRY	ABB.	0-11	NO	47K	YES	NO	NO
U.S.A.	K8						
CANADA	P8						

04	ES	VR-357 (X09-6160-10)								
		DESTINATION COUNTRY	UNIT No.	(A)	(B)	R13	C1,2	C3	D1	D4
		U.S.A.	K7	0-10		NO	47K	YES	NO	NO
		CANADA	P7						YES	

KRF-V7020D (X09-616X-XX) / (X09-6342-10)									
DESTINATION		UNIT No.	(A)	(B)	R13	C1,2	C3	D1	D4
country	ABB.								
PX	Y7	0-21	YES		20K	NO	YES		
GENERAL MARKET	M7								
CHINA	C7	3-01	NO		47K	YES	NO	YES	NO
AUSTRALIA	X7	0-71	YES						
SHANGHAI	V7	42-10	NO						

RF-V8020D (X09-616X-XX)								
DESTINATION	UNIT No.	(A)	(B)	R13	C1.2	C3	D1	D4
PX	Y6			20K	NO	YES	YES	NO
GENERAL MARKET	M8	0-22	YES	47K	YES	NO		
MALAYSIA	I8				NO	YES		
CHINA	C8	3-02	NO					
AUSTRALIA	X8	0-72	YES					





1

2

3

4

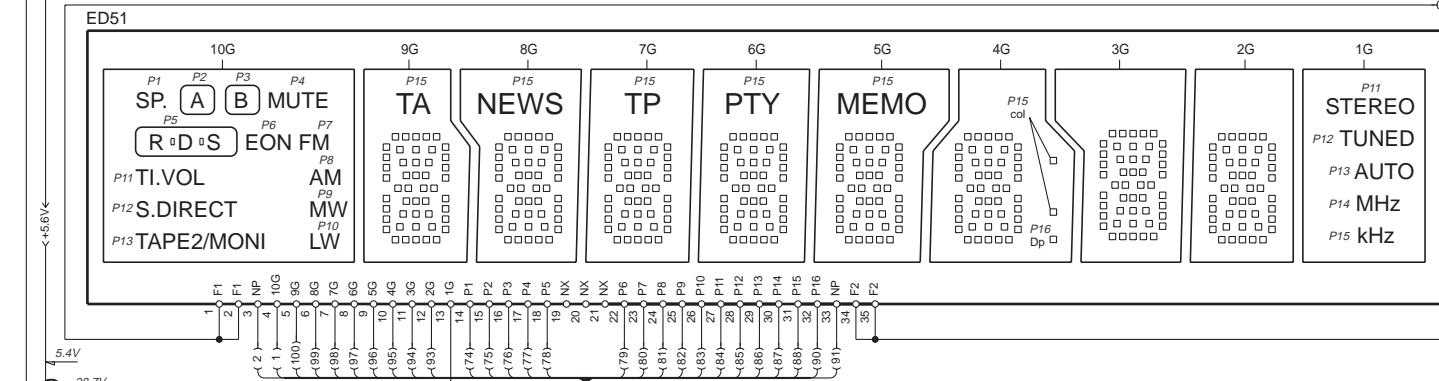
5

X08-A/2-CN1

X09-A/3-CN8

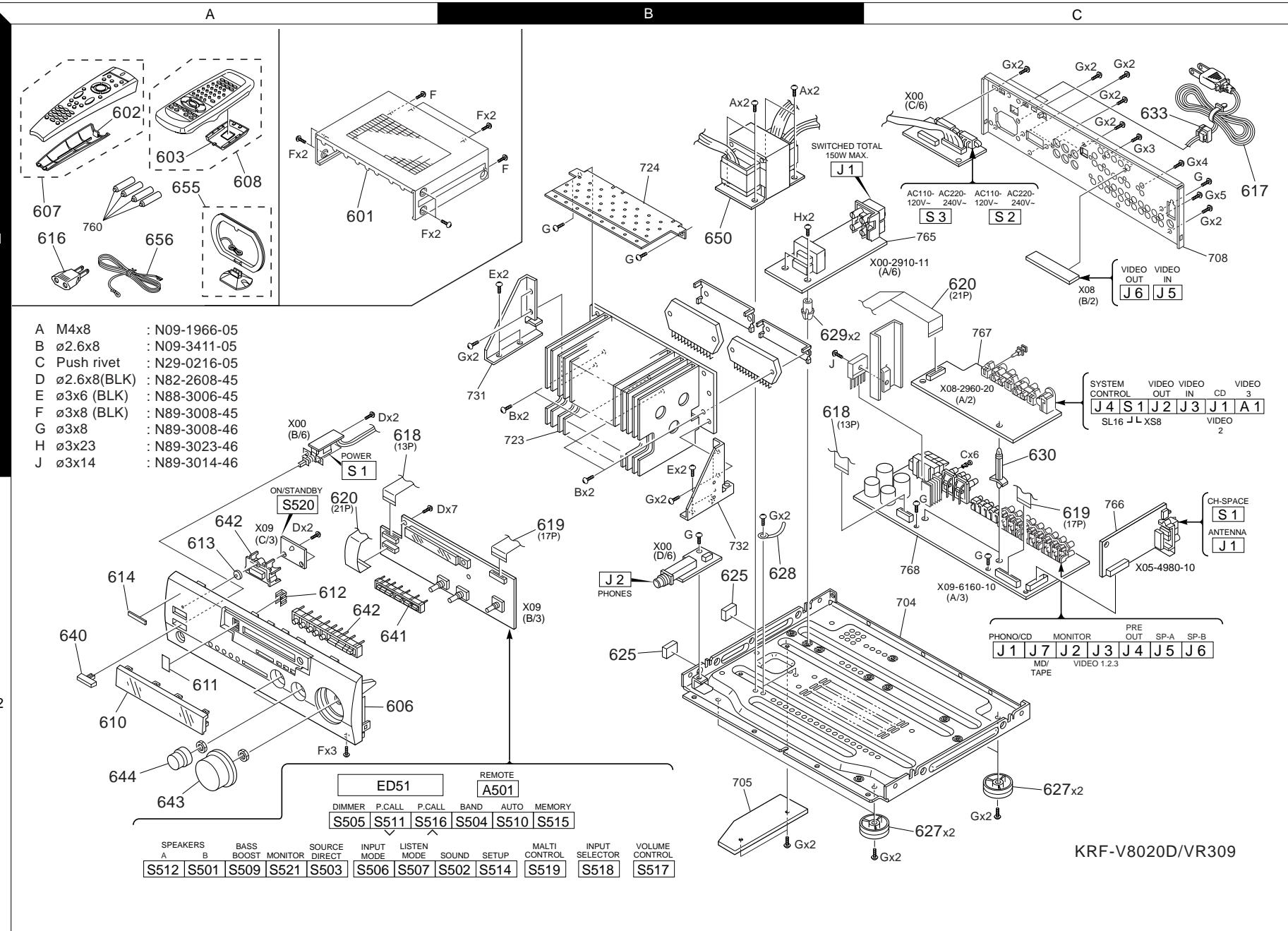
X09-A/3-CN11

F



EXPLODED VIEW (UNIT)

KRF-V7020D/V8020D/VR-307/309/357



PARTS LIST

* New Parts

Parts without **Parts No.** are not supplied.Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.Teile ohne **Parts No.** werden nicht geliefert.

③

Ref. No	Address	New Parts	Parts No.	Description			Destination	Remarks
640	2A		K27-2185-04	KNOB (BUTTON)	POWER		V	
640	2A		K27-2275-04	KNOB (BUTTON)	POWER		MCXI	
640	2A		K27-2293-04	KNOB (BUTTON)	POWER		Y	
641	2A		K29-7310-03	KNOB	TUNER,BLK		MCXI	
641	2A		K29-7323-03	KNOB	TUNER,GOLD		KPY	
641	2A	*	K29-7366-03	KNOB	TUNER,BLK		V	
642	2A	*	K29-7364-12	KNOB	SPEAKER,BLK		V	
642	2A		K29-7370-02	KNOB	SPEAKER,GOLD		KPY	
642	2A		K29-7371-02	KNOB	SPEAKER,BLK		MCXI	
643	2A		K29-7306-14	KNOB	D54,BLK		V	
643	2A		K29-7312-04	KNOB	D54,BLK		MCZI	
643	2A		K29-7325-04	KNOB	D54,GOLD		KPY	
644	2A		K29-7307-14	KNOB	D33,BLK		V	
644	2A		K29-7313-04	KNOB	D33,BLK		MCXI	
644	2A		K29-7326-04	KNOB	D33,GOLD		KPY	
△ 650	1B	*	L07-2693-05	POWER TRANSFORMER			KP	
△ 650	1B	*	L07-2694-05	POWER TRANSFORMER			YMI	
△ 650	1B	*	L07-2695-05	POWER TRANSFORMER			C	
△ 650	1B	*	L07-2696-05	POWER TRANSFORMER			X	
△ 650	1B	*	L07-2708-05	POWER TRANSFORMER			V	
655	1A		T90-0833-05	LOOP ANTENNA				
656	1A		T90-0836-05	LEAD WIRE ANTENNA				

POWER SUPPLY (X00-2910/X00-2892)

C5, 6			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C7			CE04DW1E331M	ELECTRO	330UF	25WV		
C8			CK45FB1H102K	CERAMIC	1000PF	K		
C10			CE04KW1C470M	ELECTRO	47UF	16WV		
C11			CE04KW1V4R7M	ELECTRO	4.7UF	35WV		
△ C13, 14			CC45FSL1H101J	CERAMIC	100PF	J		
C26			C91-1448-05	FILM	0.0068uF	250VAC	KP	
CN1			E40-4245-05	PIN ASSY				
CN2			E40-4245-05	PIN ASSY			KPCXV	
CN3			E40-4245-05	PIN ASSY			YMICXV	
CN4			E40-8197-05	SOCKET FOR PIN ASSY				
CN11			E40-4281-05	PIN ASSY			YMI	
CN12			E40-3247-05	PIN ASSY				
△ J1	1B		E03-0148-05	AC OUTLET			KPY	
△ J1	1B		E03-0149-05	AC OUTLET			MI	
△ J1	1B		E03-0325-05	AC OUTLET			X	
△ J1	1B		E03-0361-05	AC OUTLET			CV	
J2	2B		E11-0127-05	PHONE JACK	(3P)			
CN5, 6			J13-0075-05	FUSE CLIP				
CN7, 8			J13-0075-05	FUSE CLIP				
E1			J11-0808-05	WIRE CLAMPER			YMI	
△ T1		*	L07-2129-05	POWER TRANSFORMER			V	
△ T1		*	L07-2567-05	POWER TRANSFORMER			KP	
△ T1		*	L07-2568-05	POWER TRANSFORMER			YMI	
△ T1		*	L07-2569-05	POWER TRANSFORMER			CX	
△ R1			R92-1844-05	CARBON	3.3M	J	1/2W	KP
△ K1			S76-0070-05	MAGNETIC RELAY				
△ S1			S68-0088-05	PUSH SWITCH			V	
△ S1			S68-0100-05	PUSH SWITCH			YMCXI	
△ S2, 3			S62-0001-05	SLIDE SWITCH			YMI	

L : Scandinavia

K : USA

P : Canada

R : Mexico

C : China

I : Malaysia

Y : PX(Far East, Hawaii)

T : Europe

E : Europe

G : Germany

V : China(Shanghai)

R : Mexico

C : China

I : Malaysia

Y : AAFES(Europe)

X : Australia

Q : Russia

H : Korea

M : Other Areas

△ indicates safety critical components.

* New Parts

Parts without **Parts No.** are not supplied.Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.Teile ohne **Parts No.** werden nicht geliefert.

④

Ref. No	Address	New Parts	Parts No.	Description			Destination	Remarks
△ D1-4			S5688B	DIODE				
△ D1-4			1SR139-400	DIODE				
D5			HZS6.2N(B2)	ZENER DIODE				
D5			MTZJ6.2(B)	ZENER DIODE				
△ D6, 7			HSS104A	DIODE				
△ D6, 7			1SS133	DIODE				
△ D8			HZS2.7N(B2)	ZENER DIODE				
△ D8			MTZJ2.7(B)	ZENER DIODE				
D9			HSS104A	DIODE				
D9			1SS133	DIODE				
△ Q1			2SC3940A(R,S)	TRANSISTOR				
Q2			2SC2003(L,K)	TRANSISTOR				
TUNER (X05-4980/X05-5062)								
C1			CK73FB1H223K	CHIP C	0.022UF	K		
C3			CK73FB1H103K	CHIP C	0.010UF	K		
C5, 6			CK73FB1H103K	CHIP C	0.010UF	K		
C7			CE04LW1C470M	ELECTRO	47UF	16WV		
C8			CK73EB1H103K	CHIP C	0.010UF	K		
C10			CE04LW1C470M	ELECTRO	47UF	16WV		
C11, 12			CK73FB1H473K	CHIP C	0.047UF	K		
C14			CE04LW1C100M	ELECTRO	10UF	16WV		
C15			CE04LW1H010M	ELECTRO	1.0UF	50WV		
C16			C90-3251-05	ELECTRO	0.47UF	50WV		
C17			CE04LW1H010M	ELECTRO	1.0UF	50WV		
C18			CC73FCH1H470J	CHIP C	47PF	J		
C19			C90-3217-05	ELECTRO	10UF	10WV		
C20			CK73FB1H473K	CHIP C	0.047UF	K		
C21			C90-3241-05	ELECTRO	3.3UF	35WV		
C22			CK73FB1H473K	CHIP C	0.047UF	K		
C23			CE04LW1C100M	ELECTRO	10UF	16WV		
C24			CK73FB1H331K	CHIP C	330PF	K		
C25			CC73FCH1H471J	CHIP C	470PF	J		
C26			CK73FB1H223K	CHIP C	0.022UF	K		
C27			CE04HW1E4R7M	NP-ELEC	4.7UF	25WV		
C28, 29			CE04LW1H2R2M	ELECTRO	2.2UF	50WV		
C30, 31			CK73FB1H223K	CHIP C	0.022UF	K		
C30, 31			CK73FB1H333K	CHIP C	0.033UF	K		
C32			CE04LW1V4R7M	ELECTRO	4.7UF	35WV		
C33, 34			CK73FB1H103K	CHIP C	0.010UF	K		
C35			CK73FB1H332K	CHIP C	3300PF	K		
C36			CK73FB1H103K	CHIP C	0.010UF	K		
C37, 38			CE04LW1C100M	ELECTRO	10UF	16WV		
C39			CC73FCH1H060D	CHIP C	6.0PF	D		
C40			CC73FCH1H202C	CHIP C	2.0PF	C		
C41			CC73FCH1H220J	CHIP C	22PF	J		
C42			CC73FCH1H120J	CHIP C	12PF	J		
C42			CC73FCH1H270J	CHIP C	27PF	J		
C43			CC73FCH1H100D	CHIP C	10PF	D		
C43			CC73FCH1H100D	CHIP C	10PF	D		
C43			CC73FCH1H220J	CHIP C	22PF	J		
C44			CK73FB1H471K	CHIP C	470PF	K		
C44			CC73FCH1H220J	CHIP C	22PF	J		
C45			CC73FCH1H220J	CHIP C	22PF	J		
C46			CE04LW1C100M	ELECTRO	10UF	16WV		

L : Scandinavia

K : USA

P : Canada

R : Mexico

C : China

I : Malaysia

Y : PX(Far East, Hawaii)

T : Europe

E : Europe

G : Germany

V : China(Shanghai)

Y : AAFES(Europe)

X : Australia

Q : Russia

H : Korea

M : Other Areas

△ indicates safety critical components.

PARTS LIST

* New Parts

Parts without **Parts No.** are not supplied.Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.Teile ohne **Parts No.** werden nicht geliefert.

5

Ref. No	Address	New Parts	Parts No.	Description			Desti- nation	Re- marks
C47			CK73FB1H102K	CHIP C	1000PF	K		
C48			CE04LW1C470M	ELECTRO	47UF	16WV		
C49			CE04LW1H2R2M	ELECTRO	2.2UF	50WV		
C50			CC73FSL1H101J	CHIP C	100PF	J		
C51			CK73FB1H471K	CHIP C	470PF	K		
C52			CC73FSL1H101J	CHIP C	100PF	J		
C72			CE04LW1H010M	ELECTRO	1.0UF	50WV		
C73			CE04LW1C470M	ELECTRO	47UF	16WV		
C74			CK73FB1H102K	CHIP C	1000PF	K	KP	
C75			CC73FCH1H040C	CHIP C	4.0PF	C		
C76			CC73FCH1H470J	CHIP C	47PF	J		
C77			CC73FSL1H101J	CHIP C	100PF	J	YMCIV	
C78			CK73FB1H223K	CHIP C	0.022UF	K		
C81			CK73FF1C105Z	CHIP C	1.0UF	Z		
C82			CK73FB1H103K	CHIP C	0.010UF	K	KP	
C83			CC73FSL1H101J	CHIP C	100PF	J		
C84, 85			CK73FB1H223K	CHIP C	0.022UF	K		
C86			CK73FB1H471K	CHIP C	470PF	K		
C88			CK73FB1H332K	CHIP C	3300PF	K		
C89, 90			CK73FB1H472K	CHIP C	4700PF	K		
C91			CK73FF1C105Z	CHIP C	1.0UF	Z		
CN1			E40-9831-05	SOCKET FOR PIN ASSY			KP	
CN2			E40-4871-05	PIN ASSY			KP	
J1	2C		E20-0321-05	LOCK TERMINAL BOARD(2P,F)			YMCXI	
J1	2C		E20-0321-05	LOCK TERMINAL BOARD(2P,F)				
J1	2C		E70-0052-05	LOCK TERMINAL BOARD			KP	
J1	2C		E70-0080-05	LOCK TERMINAL BOARD				
CF1, 2			L72-0531-05	CERAMIC FILTER			YMCXIV	
CF1, 2			L72-0596-05	CERAMIC FILTER				
CF3			L72-0607-05	CERAMIC FILTER			YMCXIV	
L1			L39-1366-05	COMBINATION COIL				
L2			L40-1091-17	SMALL FIXED INDUCTOR(1UH)				
L3			L30-0911-05	AM IFT				
L4			L30-0950-05	FM IFT			KP	
L5			L30-0951-05	FM IFT			KP	
L9			L40-1001-17	SMALL FIXED INDUCTOR(10UH,K)				
X1			L77-2187-05	CRYSTAL RESONATOR			V	
X1			L77-2232-05	CRYSTAL RESONATOR			KP	
X1			L77-2232-05	CRYSTAL RESONATOR			YMCXI	
R1			RK73FB2A101J	CHIP R	100	J	1/10W	
R4			RK73FB2A681J	CHIP R	680	J	1/10W	
R5			RK73FB2A332J	CHIP R	3.3K	J	1/10W	
R6			RK73FB2A221J	CHIP R	220	J	1/10W	
R7			RK73FB2A821J	CHIP R	820	J	1/10W	
R8			RK73FB2A330J	CHIP R	33	J	1/10W	
R9			RK73FB2A391J	CHIP R	390	J	1/10W	
R10			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R11			RK73FB2A330J	CHIP R	33	J	1/10W	
R12			RK73FB2A101J	CHIP R	100	J	1/10W	
R14			RK73FB2A101J	CHIP R	100	J	1/10W	KP
R14			RK73FB2A271J	CHIP R	270	J	1/10W	YMCXIV
R15			RK73FB2A333J	CHIP R	33K	J	1/10W	KP

L: Scandinavia

K: USA

P: Canada

R: Mexico

C: China

I: Malaysia

Y: PX(Far East, Hawaii)

T: Europe

E: Europe

G: Germany

V: China(Shanghai)

H: Korea

M: Other Areas

△ indicates safety critical components.

* New Parts

Parts without **Parts No.** are not supplied.Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.Teile ohne **Parts No.** werden nicht geliefert.

6

Ref. No	Address	New Parts	Parts No.	Description			Desti- nation	Re- marks
R16			RK73FB2A220J	CHIP R	22	J	1/10W	
R17			RK73FB2A362J	CHIP R	3.6K	J	1/10W	
R18			RK73FB2A302J	CHIP R	3.0K	J	1/10W	
R19			RK73FB2A822J	CHIP R	8.2K	J	1/10W	
R20			RK73FB2A392J	CHIP R	3.9K	J	1/10W	
R23			RK73FB2A332J	CHIP R	3.3K	J	1/10W	YMCXIV
R23			RK73FB2A472J	CHIP R	4.7K	J	1/10W	KP
R25			RK73FB2A183J	CHIP R	18K	J	1/10W	YMCXIV
R25			RK73FB2A223J	CHIP R	22K	J	1/10W	KP
R27, 28			RK73FB2A512J	CHIP R	5.1K	J	1/10W	KP
R27, 28			RK73FB2A622J	CHIP R	6.2K	J	1/10W	YMCXII
R27, 28			RK73FB2A752J	CHIP R	7.5K	J	1/10W	V
R29			RK73FB2A101J	CHIP R	100	J	1/10W	YMCIV
R30			RK73FB2A561J	CHIP R	560	J	1/10W	YMCIV
R31			RK73FB2A473J	CHIP R	47K	J	1/10W	YMCIV
R32			RK73FB2A272J	CHIP R	2.7K	J	1/10W	
R33, 34			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R42			RK73FB2A103J	CHIP R	10K	J	1/10W	
R43			RK73FB2A221J	CHIP R	220	J	1/10W	
R44			RD14NB2E271J	RD	270	J	1/4W	
R45			RK73EB2B102J	CHIP R	1.0K	J	1/8W	
R46			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R47			RK73EB2B102J	CHIP R	1.0K	J	1/8W	
R48			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R49			RK73FB2A103J	CHIP R	10K	J	1/10W	
R50			RD14NB2E471J	RD	470	J	1/4W	
R51			RK73FB2A562J	CHIP R	5.6K	J	1/10W	
R52			RK73FB2A101J	CHIP R	100	J	1/10W	
R53			RK73FB2A222J	CHIP R	2.2K	J	1/10W	
R54			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R55			RK73FB2A333J	CHIP R	33K	J	1/10W	
R56, 57			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R58			RK73FB2A123J	CHIP R	12K	J	1/10W	
R59			RK73FB2A122J	CHIP R	1.2K	J	1/10W	
R72, 73			RK73FB2A153J	CHIP R	15K	J	1/10W	KP
R72, 73			RK73FB2A822J	CHIP R	8.2K	J	1/10W	
R74			RK73FB2A473J	CHIP R	47K	J	1/10W	
R75			RK73FB2A822J	CHIP R	8.2K	J	1/10W	
R76			RK73FB2A182J	CHIP R	1.8K	J	1/10W	
R78			RK73FB2A821J	CHIP R	820	J	1/10W	
R79			RK73FB2A332J	CHIP R	3.3K	J	1/10W	
R81			RS14KB3A151J	FL-PROOF RS	150	W	1W	
R82			RK73FB2A272J	CHIP R	2.7K	J	1/10W	KP
R83			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R84			RK73EB2B102J	CHIP R	1.0K	J	1/8W	
R85-87			RK73FB2A105J	CHIP R	1.0M	J	1/10W	
R88			RK73FB2A563J	CHIP R	56K	J	1/10W	
R89			RK73FB2A333J	CHIP R	33K	J	1/10W	
VR1			R32-0037-05	SEMI FIXED VARIABLE RESISTOR	0 OHM			
W51, 52			R92-0670-05	CHIP R	0 OHM			
W54-56			R92-0670-05	CHIP R	0 OHM			YMCIV
W54, 55			R92-0670-05	CHIP R	0 OHM			KPX
W59			R92-0670-05	CHIP R	0 OHM			
W62			R92-0670-05	CHIP R	0 OHM			
W80			R92-0679-05	CHIP R	0 OHM			

L: Scandinavia

K: USA

P: Canada

R: Mexico

C: China

I: Malaysia

Y: PX(Far East, Hawaii)

T: Europe

E: Europe

G: Germany

V: China(Shanghai)

H: Korea

M: Other Areas

△ indicates safety critical components.

KRF-V7020D/V8020D/VR-307/309/357

PARTS LIST

* New Parts

Parts without **Parts No.** are not supplied.

Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.

Teile ohne **Parts No.** werden nicht geliefert.

7

Ref. No	Add- ress	New Parts	Parts No.	Description		Desti- nation	Re- marks
W82-85			R92-0679-05	CHIP R	0 OHM		
S1	2C		S62-0034-05	SLIDE SWITCH		YMCIV	
D1			DA204U	DIODE			
D1			MA143A	DIODE			
D1			1SS302	DIODE			
D3			HZS8.2N(B2)	ZENER DIODE			
D3			MTZJ8.2(B)	ZENER DIODE			
D4			HZS5.1N(B2)	ZENER DIODE			
D4			MTZJ5.1(B)	ZENER DIODE			
D5			HZS2.7N(B2)	ZENER DIODE			
D5			MTZJ2.7(B)	ZENER DIODE			
D8			MA111	DIODE			
D9			HZS3.3N(B2)	ZENER DIODE			
D9			MTZJ3.3(B)	ZENER DIODE			
D13			MA111	DIODE			
IC1			LA1837	ANALOGUE IC			
IC1			LA1838	ANALOGUE IC			
IC2			LC72131	MOS-IC			
Q1			2SC4081(R,S)	TRANSISTOR			
Q1			2SD1819A(Q,R)	TRANSISTOR			
Q2			2SA1576A(R,S)	TRANSISTOR			
Q2			2SB1218A(Q,R)	TRANSISTOR			
Q3, 4			2SC4081(R,S)	TRANSISTOR			
Q3, 4			2SD1819A(Q,R)	TRANSISTOR			
Q10, 11			2SD1757K	TRANSISTOR			
Q12			2SA1576A(R,S)	TRANSISTOR			
Q12			2SB1218A(Q,R)	TRANSISTOR			
Q14			2SA1576A(R,S)	TRANSISTOR			
Q14			2SB1218A(Q,R)	TRANSISTOR			
A1			W02-2622-05	FM FRONT-END ASSY			
SURROUND (X08-2960/X08-2982)							
C1~4			CK73FB1E104K	CHIP C	0.10UF	K	
C5, 6			CC73FSL1H102J	CHIP C	1000PF	J	
C7~9			CK73FB1E104K	CHIP C	0.10UF	K	
C10			CC73FSL1H331J	CHIP C	330PF	J	
C11, 12			CC73FCH1H150J	CHIP C	15PF	J	
C13, 14			CC73FCH1H180J	CHIP C	18PF	J	
C15			CC73FSL1H101J	CHIP C	100PF	J	
C16			CC73FSL1H471J	CHIP C	470PF	J	
C17			CK73FB1H103K	CHIP C	0.010UF	K	
C18			CC73FSL1H102J	CHIP C	1000PF	J	
C19			CK73FB1E104K	CHIP C	0.10UF	K	
C20			CE04KW1V4R7M	ELECTRO	4.7UF	35WV	
C21			CC73FCH1H330J	CHIP C	33PF	J	
C22, 23			CC73FCH1H120J	CHIP C	12PF	J	
C24, 25			CC73FCH1H150J	CHIP C	15PF	J	
C26			CE04KW1E470M	ELECTRO	47UF	25WV	
C27			CK73FB1E104K	CHIP C	0.10UF	K	
C28			CC73FSL1H470J	CHIP C	47PF	J	
C29			CC73FCH1H220J	CHIP C	22PF	J	
C30~32			CK73FB1E104K	CHIP C	0.10UF	K	
C33, 34			CC73FCH1H220J	CHIP C	22PF	J	

L : Scandinavia
Y : PX(Far East, Hawaii)
Y : AAFFES(Europe)

K : USA
T : Europe
X : Australia

P : Canada
E : Europe
G : Germany
H : Korea

R : Mexico

C : China
V : China(Shanghai)

I : Malaysia
M : Other Areas

▲ indicates safety critical components.

* New Parts

Parts without **Parts No.** are not supplied.

Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.

Teile ohne **Parts No.** werden nicht geliefert.

8

Ref. No	Add- ress	New Parts	Parts No.	Description		Desti- nation	Re- marks
C35			CK73FB1H223KTA	CHIP C	0.022UF	K	
C36			CK73FFC1C224Z	CHIP C	0.22UF	Z	
C37			CK73FB1H103K	CHIP C	0.010UF	K	
C38			CE04KW1H2R2M	ELECTRO	2.2UF	50WV	
C39, 40			CK73FB1E104K	CHIP C	0.10UF	K	
C41, 42			CC73FCH1H220J	CHIP C	22PF	J	
C43			CK73FB1E104K	CHIP C	0.10UF	K	
C44			CC73FSL1H470J	CHIP C	47PF	J	
C45			CC73FSL1H221J	CHIP C	220PF	J	
C46			CC73FSL1H470J	CHIP C	47PF	J	
C50~52			CE04KW1C100M	ELECTRO	10UF	16WV	
C55			CC73FSL1H470J	CHIP C	47PF	J	
C56			CE04KW0J471M	ELECTRO	470UF	6.3WV	
C57			CE04KW1A470M	ELECTRO	47UF	10WV	
C58, 59			CK73FB1H103K	CHIP C	0.010UF	K	
C60, 61			CC73FSL1H221J	CHIP C	220PF	J	
C83			CE04KW1C222M	ELECTRO	2200UF	16WV	
C84			CQ93FMG1H104J	MYLAR	0.10UF	J	
C85, 86			CK73FB1E104K	CHIP C	0.10UF	K	
C88			CE04KW1A101M	ELECTRO	100UF	10WV	
C89, 90			CK73FB1E104K	CHIP C	0.10UF	K	
C92			CE04KW1A101M	ELECTRO	100UF	10WV	
C93~95			CK73FB1E104K	CHIP C	0.10UF	K	
C101, 102			CC73FCH1H220J	CHIP C	22PF	J	
C103, 104			CC73FSL1H101J	CHIP C	100PF	J	
C107, 108			CC73FSL1H681J	CHIP C	680PF	J	
C109, 110			CE04KW1H100M	ELECTRO	10UF	50WV	
C111, 112			CC73FSL1H182J	CHIP C	1800PF	J	
C113, 114			CE04KW1V4R7M	ELECTRO	4.7UF	35WV	
C115, 116			CK73FB1H152K	CHIP C	1500PF	K	
C117, 118			CC73FSL1H681J	CHIP C	680PF	J	
C123~126			CC73FSL1H101J	CHIP C	100PF	J	
C128			CC73FSL1H101J	CHIP C	100PF	J	
C131, 132			CK73FB1H822K	CHIP C	8200PF	K	
C133, 134			CE04KW1V4R7M	ELECTRO	4.7UF	35WV	
C135, 136			CK73FB1H272K	CHIP C	2700PF	K	
C137, 138			CK73FB1H392K	CHIP C	3900PF	K	
C141, 142			CC73FSL1H101J	CHIP C	100PF	J	
C143, 144			CE04KW1V4R7M	ELECTRO	4.7UF	35WV	
C145~148			CK73FB1H103K	CHIP C	0.010UF	K	
C150			CK73FB1H103K	CHIP C	0.010UF	K	
C151			CK73FB1E473KTA	CHIP C	0.047UF	K	
C152			CK73FB1H822K	CHIP C	8200PF	K	
C153, 154			CE04KW1V4R7M	ELECTRO	4.7UF	35WV	
C155			CK73FB1E104K	CHIP C	0.10UF	K	
C156			CK73FB1H272K	CHIP C	2700PF	K	
C157			CK73FB1E104K	CHIP C	0.10UF	K	
C158			CK73FB1H392K	CHIP C	3900PF	K	
C161, 162			CC73FSL1H101J	CHIP C	100PF	J	
C163, 164			CE04KW1V4R7M	ELECTRO	4.7UF	35WV	
C165			CC73FSL1H102J	CHIP C	1000PF	J	
C171~176			CC73FSL1H101J	CHIP C	100PF	J	
C177, 178			CE04KW1V4R7M	ELECTRO	4.7UF	35WV	
C182			CE04KW1V4R7M	ELECTRO	4.7UF	35WV	
C185			CK73FB1H222K	CHIP C	2200PF	K	

L : Scandinavia
Y : PX(Far East, Hawaii)
Y : AAFFES(Europe)

K : USA
T : Europe
X : Australia

P : Canada
E : Europe
G : Germany
H : Korea

R : Mexico
C : China
V : China(Shanghai)

I : Malaysia
M : Other Areas

▲ indicates safety critical components.

PARTS LIST

10

* New Parts

Parts without **Parts No.** are not supplied.Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.Teile ohne **Parts No.** werden nicht geliefert.

9

Ref. No	Address	New Parts	Parts No.	Description	Desti- nation	Re- marks	Ref. No	Address	New Parts	Parts No.	Description	Desti- nation	Re- marks
R23			RK73FB2A221J	CHIP R	220	J 1/10W	67						
R24			RK73FB2A221J	CHIP R	220	J 1/10W							
R25~27			RK73FB2A222J	CHIP R	2.2K	J 1/10W							
R28			RK73FB2A105J	CHIP R	1.0M	J 1/10W							
R29			RK73FB2A750J	CHIP R	75	J 1/10W							
R30			RK73FB2A472J	CHIP R	4.7K	J 1/10W							
R31			RK73FB2A473J	CHIP R	47K	J 1/10W							
R32			RK73FB2A472J	CHIP R	4.7K	J 1/10W							
R33~36			RK73FB2A102J	CHIP R	1.0K	J 1/10W							
R37			RK73FB2A302J	CHIP R	3.0K	J 1/10W							
R38			RK73FB2A102J	CHIP R	1.0K	J 1/10W							
R39			RK73FB2A222J	CHIP R	2.2K	J 1/10W							
R40			RK73FB2A472J	CHIP R	4.7K	J 1/10W							
R41			RK73FB2A473J	CHIP R	47K	J 1/10W							
R42			RK73FB2A750J	CHIP R	75	J 1/10W							
R43~45			RK73FB2A221J	CHIP R	220	J 1/10W							
R46			RK73FB2A221J	CHIP R	220	J 1/10W	8						
R47, 48			RK73FB2A101J	CHIP R	100	J 1/10W	KP						
R47, 48			RK73FB2A101J	CHIP R	100	J 1/10W	YMCXI						
R50			RK73FB2A750J	CHIP R	75	J 1/10W							
R51			RK73FB2A332J	CHIP R	3.3K	J 1/10W							
R52, 53			RK73FB2A750J	CHIP R	75	J 1/10W							
R54			RK73FB2A332J	CHIP R	3.3K	J 1/10W							
R55, 56			RK73FB2A750J	CHIP R	75	J 1/10W							
△ R57, 58			RS14KB3A391J	FL-PROOF RS	390	J 1W							
△ R59, 60			RS14KB3A101J	FL-PROOF RS	100	J 1W	8						
△ R61			RS14KB3A390J	FL-PROOF RS	39	J 1W							
△ R62			RS14KB3A271J	FL-PROOF RS	270	J 1W							
△ R64			RD14NB2E1R0J	RD	1	J 1/4W							
△ R66			RD14NB2E2R2J	RD	2.2	J 1/4W							
△ R67			RD14NB2E1R0J	RD	1	J 1/4W							
△ R68			RD14NB2E2R2J	RD	2.2	J 1/4W							
R69			RK73FB2A203J	CHIP R	20K	J 1/10W							
R70			RK73FB2A101J	CHIP R	100	J 1/10W							
R71			RK73FB2A473J	CHIP R	47K	J 1/10W							
R72			RK73FB2A472J	CHIP R	4.7K	J 1/10W							
R101~104			RK73FB2A203J	CHIP R	20K	J 1/10W							
R105, 106			RK73FB2A101J	CHIP R	100	J 1/10W							
R107, 108			RK73FB2A102J	CHIP R	1.0K	J 1/10W							
R111, 112			RK73FB2A362J	CHIP R	3.6K	J 1/10W							
R113, 114			RK73FB2A104J	CHIP R	100K	J 1/10W							
R115~118			RK73FB2A332J	CHIP R	3.3K	J 1/10W							
R119, 120			RK73FB2A113J	CHIP R	11K	J 1/10W							
R121, 122			RK73FB2A512J	CHIP R	5.1K	J 1/10W							
R123, 124			RK73FB2A221J	CHIP R	220	J 1/10W							
R131, 132			RK73FB2A132J	CHIP R	1.3K	J 1/10W							
R133, 134			RK73FB2A104J	CHIP R	100K	J 1/10W							
R135, 136			RK73FB2A122J	CHIP R	1.2K	J 1/10W							
R137, 138			RK73FB2A821J	CHIP R	820	J 1/10W							
R139, 140			RK73FB2A113J	CHIP R	11K	J 1/10W							
R141, 142			RK73FB2A203J	CHIP R	20K	J 1/10W							
R143, 144			RK73FB2A101J	CHIP R	100	J 1/10W							
R151			RK73FB2A472J	CHIP R	4.7K	J 1/10W							
R152			RK73FB2A132J	CHIP R	1.3K	J 1/10W							
R153, 154			RK73FB2A104J	CHIP R	100K	J 1/10W							

L : Scandinavia	K : USA	P : Canada	R : Mexico	C : China	I : Malaysia
Y : PX(Far East, Hawaii)	T : Europe	E : Europe	G : Germany	V : China(Shanghai)	
Y : AAFES(Europe)	X : Australia	Q : Russia	H : Korea	M : Other Areas	
△ indicates safety critical components.					△ indicates safety critical components.

L : Scandinavia	K : USA	P : Canada	R : Mexico	C : China	I : Malaysia
Y : PX(Far East, Hawaii)	T : Europe	E : Europe	G : Germany	V : China(Shanghai)	
Y : AAFES(Europe)	X : Australia	Q : Russia	H : Korea	M : Other Areas	
△ indicates safety critical components.					△ indicates safety critical components.

KRF-V7020D/V8020D/VR-307/309/357

PARTS LIST

* New Parts

Parts without **Parts No.** are not supplied.

Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.

Teile ohne **Parts No.** werden nicht geliefert.

11

Ref. No	Address	New Parts	Parts No.	Description			Desti- nation	Re- marks
R155			RK73FB2A472J	CHIP R	4.7K	J	1/10W	
R156			RK73FB2A122J	CHIP R	1.2K	J	1/10W	
R157			RK73FB2A472J	CHIP R	4.7K	J	1/10W	
R158			RK73FB2A821J	CHIP R	820	J	1/10W	
R159			RK73FB2A432J	CHIP R	4.3K	J	1/10W	
R160			RK73FB2A113J	CHIP R	11K	J	1/10W	
R161			RK73FB2A183J	CHIP R	18K	J	1/10W	
R162			RK73FB2A203J	CHIP R	20K	J	1/10W	
R163, 164			RK73FB2A101J	CHIP R	100	J	1/10W	
R165			RK73FB2A332J	CHIP R	3.3K	J	1/10W	
R166			RK73FB2A122J	CHIP R	1.2K	J	1/10W	
R167~172			RK73FB2A103J	CHIP R	10K	J	1/10W	
R173, 174			RK73FB2A133J	CHIP R	13K	J	1/10W	
R175, 176			RK73FB2A113J	CHIP R	11K	J	1/10W	
R177, 178			RK73FB2A101J	CHIP R	100	J	1/10W	
R179, 180			RK73FB2A224J	CHIP R	220K	J	1/10W	
R181			RK73FB2A751J	CHIP R	750	J	1/10W	
R182			RK73FB2A272J	CHIP R	2.7K	J	1/10W	
R183, 184			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R186			RK73FB2A100J	CHIP R	10	J	1/10W	
R189~191			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R193~198			RK73FB2A101J	CHIP R	100	J	1/10W	
R199			RS14KB3A221J	FL-PROOF RS	220	J	1W	
R200			RS14KB3A271J	FL-PROOF RS	270	J	1W	
R201			RK73FB2A100J	CHIP R	10	J	1/10W	
R203, 204			RK73FB2A100J	CHIP R	10	J	1/10W	
R207, 208			RK73FB2A100J	CHIP R	10	J	1/10W	
R251, 252			RK73FB2A750J	CHIP R	75	J	1/10W	8
R253, 254			RK73FB2A332J	CHIP R	3.3K	J	1/10W	8
R255~258			RK73FB2A750J	CHIP R	75	J	1/10W	8
R259, 260			RK73FB2A332J	CHIP R	3.3K	J	1/10W	8
R261~264			RK73FB2A750J	CHIP R	75	J	1/10W	8
S1	1C		S62-0034-05	SLIDE SWITCH				
D1, 2			DA204U	DIODE				
D1, 2			ISS302	DIODE				
D3, 4			UDZ5.1B	ZENER DIODE				
D5		*	S1ZB20(4072)	DIODE				
D6~8			UDZ6.2B	ZENER DIODE				
D9, 10			UDZ6.8B	ZENER DIODE				
D11, 12			UDZ13B	ZENER DIODE				
IC1		*	YSS902	MOS-IC				
IC1		*	YSS912	MOS-IC				
IC2			CS4226KQG	MOS-IC				
IC3			TC74HCU04AF	IC(HEX INVERTER SMD)				
IC4			NJM2279M	ANALOGUE IC				
IC5			TC9162AF	MOS-IC				
IC6~10			NJM4565M	ANALOGUE IC				
IC11			M62446FP	ANALOGUE IC				
IC12			TA7805S	ANALOGUE IC				
IC13			TA7806SB	ANALOGUE IC				
IC14			L88M33T	ANALOGUE IC				
IC15			TC7W241FU	MOS-IC				
IC16, 17			NJM2279M	ANALOGUE IC				
				67				
				8				

L : Scandinavia
Y : PX(Far East, Hawaii)
Y : AAFFES(Europe)

K : USA
P : Canada
R : Mexico
C : China
I : Malaysia

T : Europe
E : Europe
G : Germany
V : China(Shanghai)

H : Korea
M : Other Areas
▲ indicates safety critical components.

* New Parts

Parts without **Parts No.** are not supplied.

Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.

Teile ohne **Parts No.** werden nicht geliefert.

12

Ref. No	Address	New Parts	Parts No.	Description			Desti- nation	Re- marks
IC18		*	L78M05T	MOS-IC (5.0V 0.5A REG)			8	
IC19		*	L79M05T	MOS-IC			8	
Q1			2SC4081(R,S)	TRANSISTOR				
Q1			2SD1819A(Q,R)	TRANSISTOR				
Q2			2SA1576A(R,S)	TRANSISTOR				
Q2		1C	2SB1218A(Q,R)	TRANSISTOR				
A1			W02-1181-05	OPTIC RECEIVING MODULE				
				AUDIO (X09-6160/X09-6342)				
D500~502		*	B30-2545-05	LED(RED3(160))				
D527		*	B30-2545-05	LED(RED3(160))				
C1, 2			CK45FF1H103Z	CERAMIC				
C3			C91-1480-05	MP				
C5, 6		*	C90-3832-05	ELECTRO				
C7, 8		*	C90-3834-05	ELECTRO				
C9			CE04KW1V222M	ELECTRO				
C10			CE04KW1V471M	ELECTRO				
C11~14			CK73FF1C224Z	CHIP C				
C15, 16			CE04KW1E101M	ELECTRO				
C18			CE04KW1J220M	ELECTRO				
C19			CE04KW1V470M	ELECTRO				
C21, 22			CE04KW1H470M	ELECTRO				
C23~26			CE04KW2A100M	ELECTRO				
C29, 30			CE04KW1H470M	ELECTRO				
C31, 32			CE04KW2A100M	ELECTRO				
C33, 34			CK45FB2H392K	CERAMIC				
C35			CE04KW0J221M	ELECTRO				
C36			CE04KW1V4R7M	ELECTRO				
C37			CE04KW1H010M	ELECTRO				
C38			CE04HW1E100M	NP-ELEC				
C39, 40			CK45FB2H392K	CERAMIC				
C41			CE04KW1A101M	ELECTRO				
C42			CE04KW1C330M	ELECTRO				
C43			CE04KW1H010M	ELECTRO				
C101, 102			CC73FSL1H390J	CHIP C				
C103, 104			CE04KW1H010M	ELECTRO				
C105, 106			CC73FSL1H221J	CHIP C				
C107, 108			CE04KW1A470M	ELECTRO				
C109, 110			CC45FSL1H101J	CERAMIC				
C111, 112			CC93FMG1H123J	MYLAR				
C113, 114			CK45FB1H332K	CERAMIC				
C115, 116			CE04KW1V4R7M	ELECTRO				
C117			CC45FSL1H101J	CERAMIC				
C118			CK45FF1H103Z	CERAMIC				
C119, 120			CC73FSL1H221J	CHIP C				
C121, 122			CC73FSL1H151J	CHIP C				
C123, 124			CC73FSL1H221J	CHIP C				
C127, 128			CC73FSL1H221J	CHIP C				
C131, 132			CC73FSL1H221J	CHIP C				
C135, 136			CC73FSL1H221J	CHIP C				
C139, 140			CC73FSL1H221J	CHIP C				
C143, 144			CC73FSL1H221J	CHIP C				
C147, 148			CC73FSL1H221J	CHIP C				
C151, 152			CC73FSL1H221J	CHIP C				

L : Scandinavia
Y : PX(Far East, Hawaii)
Y : AAFFES(Europe)

K : USA
P : Canada
R : Mexico
C : China
I : Malaysia

T : Europe
E : Europe
G : Germany
V : China(Shanghai)

R : Mexico
P : Canada
R : Mexico
C : China
I : Malaysia

Y : AAFFES(Europe)
X : Australia
Q : Russia
H : Korea
M : Other Areas
▲ indicates safety critical components.

PARTS LIST

* New Parts

Parts without **Parts No.** are not supplied.Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.Teile ohne **Parts No.** werden nicht geliefert.

Ref. No	Address	New Parts	Parts No.	Description			Desti- nation	Re- marks
C155, 156			CE04KW1H2R2M	ELECTRO	2.2UF	50WV		
C157-162			CC73FSL1H101J	CHIP C	100PF	J		
C163, 164			CE04KW1C220M	ELECTRO	22UF	16WV		
C165			CC45FSL1H101J	CERAMIC	100PF	J		
C166-168			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C169, 170			CC73FSL1H221J	CHIP C	220PF	J		
C171, 172			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C173, 174			CE04KW1H2R2M	ELECTRO	2.2UF	50WV		
C175-180			CC73FSL1H101J	CHIP C	100PF	J		
C181, 182			CE04KW1C220M	ELECTRO	22UF	16WV		
C201, 202			CE04KW1H100M	ELECTRO	10UF	50WV		
C229, 230			CC73FSL1H471J	CHIP C	470PF	J		
C233, 234			CC73FSL1H101J	CHIP C	100PF	J		
C237			CC45FSL1H101J	CERAMIC	100PF	J		
C238			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C241, 242			CC73FSL1H471J	CHIP C	470PF	J		
C245-252			CC73FSL1H101J	CHIP C	100PF	J		
C253, 254			CC73FSL1H471J	CHIP C	470PF	J		
C257, 258			CC73FSL1H101J	CHIP C	100PF	J		
C263, 264			CC73FSL1H101J	CHIP C	100PF	J		
C265, 266			CE04KW1H2R2M	ELECTRO	2.2UF	50WV		
C267, 268			CE04KW1A101M	ELECTRO	100UF	10WV		
C269, 270			CC73FSL1H101J	CHIP C	100PF	J		
C271, 272			CE04KW1H2R2M	ELECTRO	2.2UF	50WV		
C273, 274			CE04KW1A101M	ELECTRO	100UF	10WV		
C277			CE04KW1H2R2M	ELECTRO	2.2UF	50WV		
C278			CK73FF1C224Z	CHIP C	0.22UF	Z		
C279			CE04KW1A101M	ELECTRO	100UF	10WV		
C280			CK73FF1C224Z	CHIP C	0.22UF	Z		
C281-285			CC45FCH1H220J	CERAMIC	22PF	J		
C286			CE04KW1V4R7M	ELECTRO	4.7UF	35WV		
C287, 288			CK73FB1H102K	CHIP C	1000PF	K		
C289-292			CK73FF1C224Z	CHIP C	0.22UF	Z		
C293, 294			CK73FB1H102K	CHIP C	1000PF	K		
C295-298			CK73FF1C224Z	CHIP C	0.22UF	Z		
C299			CK73FB1H102K	CHIP C	1000PF	K		
C301-305			CC73FSL1H100D	CHIP C	10PF	D		
C306			CC73FSL1H101J	CHIP C	100PF	J		
C307, 308			CC45FSL1H101J	CERAMIC	100PF	J		
C309-311			CK45FF1H472Z	CERAMIC	4700PF	Z		
C313-316			CK45FF1H472Z	CERAMIC	4700PF	Z		
C321-328			CE04KW1H100M	ELECTRO	10UF	50WV		
C329-333			CE04KW1C220M	ELECTRO	22UF	16WV		
C334			CE04KW1C470M	ELECTRO	47UF	16WV		
C335			CE04KW1H101M	ELECTRO	100UF	50WV	YMXI	
C501			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C502			CQ93FMG1H104J	MYLAR	0.10UF	J		
C503			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C504			CK73FB1H103K	CHIP C	0.010UF	K		
C505			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C506			CK45FB1H102K	CERAMIC	1000PF	K		
C507			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C508			CE04DWQ102M	ELECTRO	1000UF	6.3WV		
C509			CE04KW1A101M	ELECTRO	100UF	10WV		
C511			CK45FF1H103Z	CERAMIC	0.010UF	Z		

L: Scandinavia

K: USA

P: Canada

R: Mexico

C: China

I:

Malaysia

Y: PX(Far East, Hawaii)

T: Europe

E: Europe

G: Germany

V: China(Shanghai)

C:

Other Areas

△ indicates safety critical components.

* New Parts

Parts without **Parts No.** are not supplied.Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.Teile ohne **Parts No.** werden nicht geliefert.

Ref. No	Address	New Parts	Parts No.	Description			Desti- nation	Re- marks
C512-514			CK73FB1H103K	CHIP C	0.010UF	K		
C517			CE04KW1H101M	ELECTRO	1.0UF	50WV		
C518			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C519, 520			CK73FB1H103K	CHIP C	0.010UF	K		
C521			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C525			CE04KW1H101M	ELECTRO	1.0UF	50WV		
C526			C90-3214-05	ELECTRO	100UF	6.3WV		
C529, 530			CE04KW1V4R7M	ELECTRO	4.7UF	35WV		
C531			CK73FB1H103K	CHIP C	0.010UF	K		
C532			CK73FB1H102K	CHIP C	1000PF	K		
C534			C90-1827-05	ELECTRO	0.047F	5.5WV		
C535			CE04KW0J471M	ELECTRO	470UF	6.3WV	YMCXIV	
CN1		*	E40-4299-05	PIN ASSY				
CN1		*	E40-8364-05	PIN ASSY				
CN8		*	E40-8251-05	FLAT CABLE CONNECTOR				
CN9		*	E40-9848-05	PIN ASSY				
CN11		*	E40-8253-05	FLAT CABLE CONNECTOR				
CN12		*	E40-8196-05	PIN ASSY				
CN13		*	E40-4248-05	PIN ASSY				
CN13		*	E40-8358-05	PIN ASSY				
CN51		*	E40-8252-05	FLAT CABLE CONNECTOR				
CN52		*	E40-8405-05	FLAT CABLE CONNECTOR				
CN53			E40-8250-05	FLAT CABLE CONNECTOR				
J1	2C		E63-0046-15	PHONO JACK			KP	
J1	2C		E63-0046-15	PHONO JACK			YMCXI	
J1	2C		E63-0172-05	PHONO JACK			V	
J2, 3	2C		E63-0047-15	PHONO JACK			KP	
J2, 3	2C		E63-0173-05	PHONO JACK			YMCXI	
J4	2C		E63-0116-05	PHONO JACK			KP	
J4	2C		E63-0116-05	PHONO JACK			YMCXI	
J4	2C		E63-0164-05	PHONO JACK			KP	
J4	2C		E63-0164-05	PHONO JACK			YMCXI	
J5	2C		E63-0164-05	PHONO JACK			V	
J5	2C		E63-1016-05	PHONO JACK			KP	
J5	2C		E70-0089-05	SCREW TERMINAL BOARD			YMCXI	
J5	2C		E70-0100-05	SCREW TERMINAL BOARD			V	
J5	2C		E70-0100-05	SCREW TERMINAL BOARD			KP	
J6	2C		E70-0047-05	LOCK TERMINAL BOARD			YMCXI	
J6	2C		E70-0047-05	LOCK TERMINAL BOARD			V	
J6	2C		E70-0068-05	LOCK TERMINAL BOARD			KP	
J7	2C		E63-0046-15	PHONO JACK			YMCXI	
J7	2C		E63-0046-15	PHONO JACK			V	
J7	2C		E63-0172-05	PHONO JACK			KP	
W401-405			E29-1634-14	LEAD PLATE			YMCXI	
W401-405			E29-1634-14	LEAD PLATE			V	
-			J19-5928-03	HOLDER				
L1~5			L39-1373-05	PHASE COMPENSATION COIL				
X501			L78-0290-05	RESONATOR (8MHZ)				
R1, 2			RK73FB2A513J	CHIP R	51K	J	1/10W	
R3, 4			RK73FB2A273J	CHIP R	27K	J	1/10W	
R5			RK73FB2A222J	CHIP R	2.2K	J	1/10W	
R6			RK73FB2A333J	CHIP R	33K	J	1/10W	
R8			RK73FB2A152J	CHIP R	1.5K	J	1/10W	YMXI

L: Scandinavia

K: USA

P: Canada

R: Mexico

C: China

I: Malaysia

Y: PX(Far East, Hawaii)

T: Europe

E: Europe

G: Germany

V: China(Shanghai)

C:

Other Areas

H: Korea

Q: Russia

M: Other Areas

I: Malaysia

△ indicates safety critical components.

KRF-V7020D/V8020D/VR-307/309/357 PARTS LIST

* New Parts

Parts without **Parts No.** are not supplied.

Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.

15

Teile ohne **Parts No.** werden nicht geliefert.

Ref. No	Address	New Parts	Parts No.	Description			Desti- nation	Re- marks
R9, 10			RS14KB3D391J	FL-PROOF RS	390	J	2W	
R11, 12			RK73FB2A472J	CHIP R	4.7K	J	1/10W	
R14			RD14NB2E1R0J	RD	1	J	1/4W	
R16, 17			RK73FB2A273J	CHIP R	27K	J	1/10W	
R18			RD14NB2E4R7J	RD	4.7	J	1/4W	
R19			RK73FB2A272J	CHIP R	4.7K	J	1/10W	
R21, 22			RS14KB3A392J	FL-PROOF RS	3.9K	J	1W	
R23, 24			RD14NB2E103J	RD	10K	J	1/4W	
R25, 26			RS14KB3A392J	FL-PROOF RS	3.9K	J	1W	
R27, 28			RK73FB2A272J	CHIP R	2.7K	J	1/10W	
R30			RK73FB2A223J	CHIP R	22K	J	1/10W	
R32			RK73FB2A153J	CHIP R	15K	J	1/10W	
R34			RK73FB2A473J	CHIP R	47K	J	1/10W	
R35			RK73FB2A272J	CHIP R	2.7K	J	1/10W	
R37			RS14KB3A681J	FL-PROOF RS	680	J	1W	
R41			RK73FB2A474J	CHIP R	470K	J	1/10W	
R43, 44			RK73FB2A1R0J	CHIP R	1	J	1/10W	
R45			RD14NB2E1R0J	RD	1	J	1/4W	
R46			RD14BB2C470J	RD	47	J	1/6W	
R47			RK73FB2A103J	CHIP R	10K	J	1/10W	
R50			RK73FB2A472J	CHIP R	4.7K	J	1/10W	
R51			RK73FB2A473J	CHIP R	47K	J	1/10W	
R101, 102			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R103, 104			RK73FB2A273J	CHIP R	27K	J	1/10W	
R105, 106			RK73FB2A101J	CHIP R	100	J	1/10W	
R117, 118			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R119, 120			RK73FB2A224J	CHIP R	220K	J	1/10W	
R121, 122			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R123, 124			RK73FB2A224J	CHIP R	220K	J	1/10W	
R125, 126			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R127, 128			RK73FB2A224J	CHIP R	220K	J	1/10W	
R129, 130			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R131, 132			RK73FB2A224J	CHIP R	220K	J	1/10W	
R135, 136			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R137, 138			RK73FB2A224J	CHIP R	220K	J	1/10W	
R139, 140			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R141, 142			RK73FB2A224J	CHIP R	220K	J	1/10W	
R143, 144			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R145, 146			RK73FB2A224J	CHIP R	220K	J	1/10W	
R147, 148			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R149, 150			RK73FB2A224J	CHIP R	220K	J	1/10W	
R151, 152			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R153-156			RK73FB2A224J	CHIP R	220K	J	1/10W	
R157, 158			RK73FB2A4R7J	CHIP R	4.7	J	1/10W	
R169-172			RK73FB2A223J	CHIP R	22K	J	1/10W	
R173, 174			RK73FB2A473J	CHIP R	47K	J	1/10W	
R175, 176			RK73FB2A224J	CHIP R	220K	J	1/10W	
R177, 178			RK73FB2A4R7J	CHIP R	4.7	J	1/10W	
R201-204			RK73FB2A202J	CHIP R	2.0K	J	1/10W	
R206			RK73FB2A103J	CHIP R	10K	J	1/10W	
R226			RK73FB2A103J	CHIP R	10K	J	1/10W	
R227, 228			RK73FB2A183J	CHIP R	18K	J	1/10W	
R229, 230			RK73FB2A224J	CHIP R	220K	J	1/10W	
R231, 232			RK73FB2A183J	CHIP R	18K	J	1/10W	
R238			RK73FB2A103J	CHIP R	10K	J	1/10W	

L : Scandinavia
Y : PX(Far East, Hawaii)
Y : AAFFES(Europe)

K : USA
P : Canada
R : Mexico
C : China
I : Malaysia

T : Europe
E : Europe
G : Germany
V : China(Shanghai)

H : Korea
M : Other Areas
△ indicates safety critical components.

* New Parts

Parts without **Parts No.** are not supplied.

Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.

16

Teile ohne **Parts No.** werden nicht geliefert.

Ref. No	Address	New Parts	Parts No.	Description			Desti- nation	Re- marks
R239, 240			RK73FB2A183J	CHIP R	18K	J	1/10W	
R241, 242			RK73FB2A224J	CHIP R	220K	J	1/10W	
R243, 244			RK73FB2A183J	CHIP R	18K	J	1/10W	
R250			RK73FB2A103J	CHIP R	10K	J	1/10W	
R251, 252			RK73FB2A183J	CHIP R	18K	J	1/10W	
R253			RK73FB2A224J	CHIP R	220K	J	1/10W	
R254			RK73FB2A822J	CHIP R	8.2K	J	1/10W	
R255, 256			RK73FB2A183J	CHIP R	18K	J	1/10W	
R263, 264			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R267-270			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R271			RK73FB2A473J	CHIP R	47K	J	1/10W	
R272			RK73FB2A361J	CHIP R	360	J	1/10W	
R273			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R274			RK73FB2A101J	CHIP R	100	J	1/10W	
R275, 276			RK73FB2A104J	CHIP R	100K	J	1/10W	
R277, 278			RK73FB2A563J	CHIP R	56K	J	1/10W	
R283, 284			RK73FB2A182J	CHIP R	1.8K	J	1/10W	
R285, 286			RK73FB2A563J	CHIP R	56K	J	1/10W	
R291			RK73FB2A182J	CHIP R	1.8K	J	1/10W	
R293			RK73FB2A563J	CHIP R	56K	J	1/10W	
R310			RK73FB2A333J	CHIP R	33K	J	1/10W	
R311, 312			R92-1866-05	METAL FILM	0.1		2W	
R313, 314			RK73FB2A303J	CHIP R	30K	J	1/10W	
R315, 316			RK73FB2A243J	CHIP R	24K	J	1/10W	
R317, 318			RK73FB2A471J	CHIP R	470	J	1/10W	
R319, 320			RK73FB2A333J	CHIP R	33K	J	1/10W	
R323, 324			RS14KB3D4R7J	FL-PROOF RS	4.7		2W	
R325, 326			R92-1866-05	METAL FILM	0.1		2W	
R327, 328			RK73FB2A303J	CHIP R	30K	J	1/10W	
R329, 330			RK73FB2A243J	CHIP R	24K	J	1/10W	
R331, 332			RK73FB2A471J	CHIP R	470	J	1/10W	
R333, 334			RK73FB2A333J	CHIP R	33K	J	1/10W	
R337, 338			RS14KB3D4R7J	FL-PROOF RS	4.7		2W	
R339			R92-1866-05	METAL FILM	0.1		2W	
R341			RS14KB3D4R7J	FL-PROOF RS	4.7		2W	
R347, 348			RK73FB2A102J	CHIP R	1.0K	J	1/10W	
R349			RK73FB2A223J	CHIP R	22K	J	1/10W	
R350			RK73FB2A103J	CHIP R	10K	J	1/10W	
R351, 352			RD14NB2E4R7J	RD	4.7	J	1/4W	
R353			RK73FB2A103J	CHIP R	10K	J	1/10W	
R354			RK73FB2A223J	CHIP R	22K	J	1/10W	
R355			RK73FB2A473J	CHIP R	47K	J	1/10W	
R356, 357			RK73FB2A104J	CHIP R	100K	J	1/10W	
R361			RK73FB2A303J	CHIP R	30K	J	1/10W	
R363			RK73FB2A243J	CHIP R	24K	J	1/10W	
R365			RK73FB2A471J	CHIP R	470	J	1/10W	
R367-371			RK73FB2A182J	CHIP R	1.8K	J	1/10W	
R372			RK73FB2A621J	CHIP R	620	J	1/10W	
R384			RK73FB2A103J	CHIP R	10K	J	1/10W	
R385			RK73FB2A513J	CHIP R	51K	J	1/10W	YMXI
R386			RK73FB2A103J	CHIP R	10K	J	1/10W	YMXI
R387			RK73FB2A472J	CHIP R	4.7K	J	1/10W	YMXI
R521			RK73FB2A103J	CHIP R	10K	J	1/10W	
R522			RD14NB2E4R7J	RD	1	J	1/4W	
R534			RK73FB2A101J	CHIP R	100	J	1/10W	

L : Scandinavia
Y : PX(Far East, Hawaii)
Y : AAFFES(Europe)

K : USA
P : Canada
R : Mexico
C : China
I : Malaysia

T : Europe
E : Europe
G : Germany
V : China(Shanghai)

H : Korea
M : Other Areas
△ indicates safety critical components.

PARTS LIST

* New Parts

Parts without **Parts No.** are not supplied.Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.Teile ohne **Parts No.** werden nicht geliefert.

17

* New Parts

Parts without **Parts No.** are not supplied.Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.Teile ohne **Parts No.** werden nicht geliefert.

18

Ref. No	Address	New Parts	Parts No.	Description				Destination	Remarks
R536			RK73FB2A471J	CHIP R	470	J	1/10W		
R539		*	RK73FB2A471J	CHIP R	470	J	1/10W		
R542			RK73EB2B511J	CHIP R	510	J	1/8W		
R549			RK73FB2A102J	CHIP R	1.0K	J	1/10W		
R562			RK73FB2A102J	CHIP R	1.0K	J	1/10W		
R578			RK73FB2A103J	CHIP R	10K	J	1/10W		
R587			RK73FB2A103J	CHIP R	10K	J	1/10W		
R592			RK73FB2A102J	CHIP R	1.0K	J	1/10W		
R605-607			RK73FB2A103J	CHIP R	10K	J	1/10W		
W503			R92-0670-05	CHIP R	0 OHM				
K1~4			S76-0076-05	MAGNETIC RELAY					
S501-507	2A, 2B		S70-0031-05	TACT SWITCH					
S509-512	2A, 2B		S70-0031-05	TACT SWITCH					
S514-516	2A, 2B		S70-0031-05	TACT SWITCH					
S520, 521	2A		S70-0031-05	TACT SWITCH					
S517	2B		T99-0602-05	ROTARY ENCODER					
S518, 519	2B		T99-0605-05	ROTARY ENCODER					
△ D1			D4SBL20UF03	DIODE				YMCXIV	
△ D2			D4SBL20UF03	DIODE					
△ D3		*	S1ZBL20(4101)	DIODE					
△ D4			D4SBL20UF03	DIODE					
D8, 9			HZS16N(B2)	ZENER DIODE				KP	
D8, 9			MTZJ16(B)	ZENER DIODE					
D11-14			HZS8.2N(B2)	ZENER DIODE					
D11-14			MTZJ8.2(B)	ZENER DIODE					
D15			MA111	DIODE					
D16, 17			HSS104A	DIODE					
D16, 17			1SS133	DIODE					
D18			HZS4.7N(B2)	ZENER DIODE					
D18			MTZJ4.7(B)	ZENER DIODE					
D19			HZS3.3N(B2)	ZENER DIODE					
D19			MTZJ3.3(B)	ZENER DIODE					
D20-23			MA111	DIODE					
D26, 27			MA111	DIODE					
D28			MA111	DIODE					
D30			MA111	DIODE					
D31, 32			HZS30N(B2)	ZENER DIODE					
D31, 32			MTZJ30(B)	ZENER DIODE					
D33			MA111	DIODE					
D503			HSS104A	DIODE					
D503			1SS133	DIODE					
D504			HSS104A	DIODE					
D508, 509			1SS133	DIODE					
D508, 509			HSS104A	DIODE					
D510			1SS133	DIODE					
D510			HSS104A	DIODE					
D511-522			HSS104A	DIODE					
D511-522			1SS133	DIODE					
D525			HZS6.2N(B2)	ZENER DIODE					
D525			MTZJ6.2(B)	ZENER DIODE					
D526			HSS104A	DIODE					
D526			1SS133	DIODE					
D529-531			HSS104A	DIODE					

L: Scandinavia

K: USA

P: Canada

R: Mexico

C: China

I: Malaysia

Y: PX(Far East, Hawaii)

T: Europe

E: Europe

G: Germany

V: China(Shanghai)

Y: AAFES(Europe)

X: Australia

Q: Russia

H: Korea

M: Other Areas

△ indicates safety critical components.

Ref. No	Address	New Parts	Parts No.	Description				Destination	Remarks
D529-531			1SS133	DIODE					
ED51		*	11-MT-120GK	INDICATOR TUBE					
△ IC1			TA7815S	IC(VOLTAGE REGULATOR/+15V)					
△ IC2			TA79015S	IC(VOLTAGE REGULATOR/-15V)					
△ IC3			STK411-230D	HYBRID IC					
△ IC3			STK411-230K	HYBRID IC					
△ IC4			STK410-030D	HYBRID IC					
△ IC5			NJM4565MD	ANALOGUE IC					
△ IC6			CX82852-139Q	MOS-IC					
△ IC7			S-80740AL-A4	MOS-IC					
△ IC8-12			2SC1845(F,E)	MOS-IC					
△ IC51		*	2SC1845(F,E)	IC(OP AMP X2)					
△ IC53			2SC1845(F,E)	MI-COM IC					
Q1			2SC1845(F,E)	IC(VOLTAGE DETECTOR)					
Q2			2SB1640	TRANSISTOR					
Q3-14			2SC2878(B)	TRANSISTOR					
△ Q15, 16			2SA1576A(R,S)	TRANSISTOR					
△ Q17-21			2SC1845(F,E)	TRANSISTOR					
△ Q22			2SA1576A(R,S)	TRANSISTOR					
△ Q23			2SA992(F,E)	TRANSISTOR					
Q24, 25			2SC1845(F,E)	TRANSISTOR					
△ Q26-29			DTC123JUA	DIGITAL TRANSISTOR					
△ Q31			2SC3944A(R,S)	TRANSISTOR					
△ Q32			2SA1123(S,T)	TRANSISTOR					
△ Q32			2SA1285A(F)	TRANSISTOR					
Q34, 35			2SC1845(F,E)	TRANSISTOR					
Q36			2SA1535A(R,S)	TRANSISTOR					
Q37			2SC1845(F,E)	TRANSISTOR					
Q38			2SC3722K(R,S)	TRANSISTOR					
Q40			2SC4213(B)	TRANSISTOR					
Q41			2SC4081(R,S)	TRANSISTOR					
Q41			2SD1819A(Q,R)	TRANSISTOR					
Q43, 44			2SC2878(B)	TRANSISTOR					
Q501			2SC4081(R,S)	TRANSISTOR					
Q501			2SD1819A(Q,R)	TRANSISTOR					
Q503			2SC4081(R,S)	TRANSISTOR					
Q503			2SD1819A(Q,R)	TRANSISTOR					
TH1			PTH9C42BD471Q	POSITIVE RESISTOR					
A501	2B		W02-2625-05	OPTIC RECEIVING MODULE					

L: Scandinavia

K: USA

P: Canada

R: Mexico

C: China

I: Malaysia

Y: PX(Far East, Hawaii)

T: Europe

E: Europe

G: Germany

V: China(Shanghai)

Y: AAFES(Europe)

X: Australia

Q: Russia

H: Korea

M: Other Areas

△ indicates safety critical components.

ABBREVIATION OF MODEL AND MASS PRODUCTION'S DESTINATIONS

MODEL	CNT ABB.	Australia	Canada	China	England	Europe	Germany	Korea	Malaysia
KRF-V7020D	7	X7	-	C7	-	-	-	-	-
KRF-V8020D	8	X8	-	C8	-	-	-	-	18

MODEL	CNT ABB.	Mexico	PX/AAFES	Russia	Scandinavia	Shanghai	USA	Other area
KRF-V7020D	7	-	Y7	-	-	V7	-	M7
KRF-V8020D	8	-	Y8	-	-	-	-	M8
VR-307	6	-	-	-	-	-	-	-
VR-357	7	-	P7	-	-	-	-	-
VR-309	8	-	P8	-	-	-	-	-

MODEL	CNT ABB.	R	Y	R	L	V	K	M
KRF-V7020D	7	-	Y7	-	-	V7	-	M7
KRF-V8020D	8	-	Y8	-	-	-	-	M8
VR-307	6	-	-	-	-	-	K6	-
VR-357	7	-	-	-	-	-	K7	-
VR-309	8	-	-	-	-	-	K8	-

SPECIFICATIONS

For other countries

AUDIO section

Effective power output during STEREO operation	
KRF-V8020D	
1kHz,10% T.H.D.,at 8 Ω	140 W + 140 W
Rated power output during STEREO operation	
100 watts per channel minimum RMS, both channels driven, at 8 Ω from 40 Hz to 20 kHz with no more than 0.7% total harmonic distortion.(FTC)	
Effective power output during SURROUND operation	
FRONT (1kHz, 10% T.H.D. at 8 Ω one channel driven)	100 W + 100 W
CENTER (1kHz, 10% T.H.D. at 8 Ω one channel driven)	100 W
SURROUND (1kHz, 10% T.H.D. at 8 Ω one channel driven)	100 W + 100 W
Total harmonic distortion	0.03% (1 kHz, 50W, 8 Ω)
Frequency response	
CD	10 Hz ~ 85kHz, +0 dB, -3.0 dB
Signal to noise ratio (IHF'66)	
PHONO (MM)	75 dB
CD	93 dB
Input sensitivity / impedance	
PHONO (MM)	2.5 mV / 27 kΩ
CD	200 mV / 47 kΩ
Output level / impedance	
TAPE REC	200 mV / 2.2 kΩ
PRE OUT (SUBWOOFER)	2 V / 2.2 kΩ
Tone control	
BASS	±10 dB (at 100 Hz)
TREBLE	±10 dB (at 10 kHz)
DIGITAL AUDIO section	
Sampling frequency	32 kHz, 44.1 kHz, 48 kHz
Input level / impedance / wave length	
Optical	-15 dBm ~ -21 dBm, 600 nm ±30nm
Coaxial	0.5 Vp-p / 75 Ω

VIDEO section

VIDEO inputs/outputs	
VIDEO (composite)	1 Vp-p / 75 Ω
S VIDEO (luminance signal)	1 Vp-p / 75 Ω
(chrominance signal)	0.286 Vp-p / 75 Ω

FM tuner section

Tuning frequency range	87.5 MHz ~ 108 MHz
Usable sensitivity (MONO)	
	1.6 μV (75 Ω)/ 15.2 dBf (75 kHz DEV., SINAD 30 dB)
50dB quieting sensitivity	
STEREO	31.6 μV (75 Ω)/ 41.2 dBf
Total harmonic distortion (1 kHz)	
MONO	0.6% (65 dBf input)
STEREO	0.7% (65 dBf input)
Signal to noise ratio (1 kHz, 75 kHz DEV.)	
MONO	75 dB (65 dBf input)
STEREO	68 dB (65 dBf input)
Stereo separation (1 kHz)	38 dB
Selectivity (±400 kHz)	50 dB
Frequency response	30 Hz ~ 15kHz, +0.5 dB, -3.0 dB

AM tuner section

Tuning frequency range	
9 kHz step	531 kHz ~ 1,602 kHz
10 kHz step	530 kHz ~ 1,610 kHz
Usable sensitivity (30% mod., S/N 20 dB)	
	16 μV / (600 μV/m)
Signal to noise ratio (30% mod. 1 mV input)	50 dB

GENERAL

Power consumption	
For U.S. military, Australia, Malaysia	240 W
For other countries	230 W
AC outlet	
SWITCHED	2 (total 150 W max.)
Dimensions	W : 440 mm H : 144 mm D : 400 mm
Weight (Net)	8.6 kg

Notes

- 1.KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
- 2.The full performance may not be exhibited in an extremely cold location (under a water-freezing temperature).

KRF-V7020D/V8020D/VR-307/309/357

SPECIFICATIONS

For U.S.A and Canada

AUDIO section

Rated power output during STEREO operation

100 watts per channel minimum RMS, both channels driven, at 8 Ω from 40 Hz to 20 kHz with no more than 0.7% total harmonic distortion.(FTC)

Effective power output during SURROUND operation
FRONT (1kHz, 0.7% T.H.D. at 8 Ω one channel driven) 100 W + 100 W
CENTER (1kHz, 0.7% T.H.D. at 8 Ω one channel driven) 100 W
SURROUND (1kHz, 0.7% T.H.D. at 8 Ω one channel driven) 100 W + 100 W

Total harmonic distortion 0.03% (1 kHz, 50W, 8 Ω)
Frequency response

CD 10 Hz ~ 85kHz, +0 dB, -3.0 dB
Signal to noise ratio (IHF'66)

PHONO (MM) 75 dB
CD 93 dB

Input sensitivity / impedance
PHONO (MM) 2.5 mV / 27 kΩ
CD 200 mV / 47 kΩ

Output level / impedance
TAPE REC 200 mV / 2.2 kΩ
PRE OUT (SUBWOOFER) 2 V / 2.2 kΩ

Tone control
BASS ±10 dB (at 100 Hz)
TREBLE ±10 dB (at 10 kHz)

DIGITAL AUDIO section

Sampling frequency 32 kHz, 44.1 kHz, 48 kHz
Input level / impedance / wave length

Optical -15 dBm ~ -21 dBm, 600 nm ±30nm
Coaxial 0.5 Vp-p / 75 Ω

VIDEO section

VIDEO inputs/outputs
VIDEO (composite) 1 Vp-p / 75 Ω
S VIDEO (luminance signal) 1 Vp-p / 75 Ω
(chrominance signal) 0.286 Vp-p / 75 Ω

Notes

1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
2. The full performance may not be exhibited in an extremely cold location (under a water-freezing temperature).

Note:

Component and circuit are subject to modification to insure best operation under differing local conditions. This manual is based on General market(M) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

KENWOOD CORPORATION

14-6,Dogenzaka 1-chome, Shibuya-ku, Tokyo, 150-8501 Japan

KENWOOD SERVICE CORPORATION

P.O BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745, U.S.A.

KENWOOD ELECTRONICS CANADA INC.

6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

KENWOOD ELECTRONICS LATIN AMERICA S.A.

P.O BOX 55-2791, Piso 6 plaza Chase, Cl.47 y Aquino de la Guardia Panama, Republic de Panama

KENWOOD ELECTRONICS BRASIL LTDA.

Av. Moema, 170-17', Andar-Cobertura "B", Ed. Maximum Service Center, 04077-020
Moema, São Paulo-SP-Brasil

KENWOOD ELECTRONICS U.K. LIMITED

KENWOOD House, Dwight Road, Watford, Herts., WD1 8EB., United Kingdom

KENWOOD ELECTRONICS BELGUM N.V.

Meachelsesteenweg 418, B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS DEUTSCHLAND GMBH

Rembrücker Str. 15, 63150 Heusenstamm, Germany

KENWOOD ELECTRONICS FRANCE S.A.

13 Boulevard Ney, 75018 Paris, France

KENWOOD ELECTRONICS ITALIA S.p.A.

Via G. Sirtori, 7/9 20129, Milano, Italy

FM tuner section

Tuning frequency range 87.5 MHz ~ 108 MHz
Usable sensitivity (MONO)

..... 1.6 μV (75 Ω)/ 15.2 dBf (75 kHz DEV., SINAD 30 dB)

50dB quieting sensitivity

STEREO 31.6 μV (75 Ω)/ 41.2 dBf

Total harmonic distortion (1 kHz)

MONO 0.6% (65 dBf input)

STEREO 0.7% (65 dBf input)

Signal to noise ratio (1 kHz, 75 kHz DEV.)

MONO 75 dB (65 dBf input)

STEREO 68 dB (65 dBf input)

Stereo separation (1 kHz) 38 dB

Selectivity (±400 kHz) 50 dB

Frequency response 30 Hz ~ 15kHz, +0.5 dB, -3.0 dB

AM tuner section

Tuning frequency range

10 kHz step 530 kHz ~ 1,700 kHz

Usable sensitivity (30% mod., S/N 20 dB)

..... 16 μV / (600 μV/m)

Signal to noise ratio (30% mod. 1 mV input) 50 dB

GENERAL

Power consumption 2.6 A

AC outlet

SWITCHED 2 (total 150 W, 1.25 A max.)

Dimensions

W : 440 mm (17-5/16")

H : 144 mm (5-11/16")

D : 400 mm (15-3/4")

Weight (Net) 8.6 kg (19.0 lb)